

Causes of Correctional Officer Stress  
and Its Consequences

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In Partial Fulfillment

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Master of Art Degree

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by

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## ABSTRACT

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This study sought to explore the different factors that caused stress for correctional officers, its consequences, and the coping techniques officers used to combat stress. The goals were to discover the antecedents that created stress, uncover the results, disclose the primary strategies used to cope with stress, and determine the helpfulness of these coping strategies. Univariate, bivariate, and multivariate analyses were used to accentuate the factors that caused stress for correctional officers.

Data were collected through survey administration at three correctional institutions, representing multiple security levels (minimum, medium and maximum) in a southern state. The final sample included 197 completed surveys from correctional officers employed by these three institutions. Those correctional officers who participated completed survey packets inclusive of the following measures: occupational resource and qualitative questionnaires, Maslach Burnout Inventory, and the Carver Coping Survey. Many correctional officers reported reasonably high levels of job stress. To support the research hypotheses, the following data were gathered: 1) job

stress could be attributed to an overall lack of job satisfaction, inmates, and a lack of support from administrations, and 2) job stress could be positively correlated to coping strategies.

Officer's response to questions about stress and resulting coping strategies discovered insufficient salaries and overtime demands were the two most commonly reported causes of stress. Additionally, certain types of stressors accentuated the plight of the correctional officer, e.g. lack of input into decision making, prison's security level, lack of support from administrations, etc.... Moreover, specific questions were analyzed to determine the most frequently reported relaxation techniques used to cope with stress. The most popular methods were exercising and seeking religion. Other popular coping mechanisms used were seeking support from family, and participating in social activities.

## PREFACE

This thesis is the result of two years of research carried out in three prisons, representing three different security levels, minimum, medium and maximum, within a southern state. It was an extremely awe-inspiring experience learning the different intricacies involved with obtaining authorization to conduct research within each prison, and conducting the actual research. The willingness of the wardens, and deputy wardens, to assist me with gaining access to correctional officers, helped guarantee this thesis would be successful.

This thesis could not have been accomplished without the support of several sympathetic and munificent people. Foremost among those is my thesis chairperson, Doctor Shannon M. Barton-Bellessa , who provided insight and guidance throughout the process. In addition, I would like to extend my appreciation to Doctor Kimberly Love-Myers, from the University of Georgia's Statistics Department, who went over and beyond with ensuring the statistical data was accurate and complete. Working with all the staff and prison employees was an educational experience.

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## CHAPTER 1

### CAUSES OF CORRECTIONAL OFFICER STRESS AND ITS CONSEQUENCES

*“...few other organizations are charged with the central task of supervising and securing an unwilling and potentially violent population...”* Armstrong and Griffin (2004, p. 577).

Since America's first modern prisons were built during the early part of the nineteenth century, these institutions have gained notorious reputations for being brutal, harsh environments, despite efforts to resolve issues of brutalization through changes in legal statutes. Nearly two centuries later, during the 1960s and '70s, few outside the prison system noticed the sea of change happening within American prisons during the "get tough on crime," beginning in the 1980s. Politician's tougher stance on crime and punishment accentuated an already unruly environment within the American prison system. New, stringent laws, coupled with tougher sentencing guidelines, triggered a steady increase in expenses, overcrowding, mentally impaired inmates, and violence. Moreover, the rigid stance towards getting tough on crime created bigger stress fractures on the financial underpinnings of state and federal budgets, along with added stress on the prison's medical and security staff. Nowhere were these stress cracks more apparent than in the backbone of the prison system, the correctional officer.

Based on past research, indicating correctional officer stress was a substantial problem within corrections, a study designed to further clarify the extent of this occurrence, as it confronts correctional officers, was warranted. Throughout the history of American penitentiaries, the physical and psychological demands placed on correctional officers have been

enormous. The stress levels experienced by an omnipresent force within the prison system, the correctional officer, parallels stress endured by police officers and others who work within civil service. Unfortunately, correctional officers, tasked with protecting society from some of its most violent people, have often been overlooked by many researchers not familiar with prisons.

The annual expenditures for occupational stress within the United States, because of absenteeism, job turnover, reduced productivity, medical expenses, and compensation claims are alarming (Schaufeli and Peeters, 2000). Research has shown correctional officers are at risk for negative effects of stress (Kaufmann, 1988). When correctional officers become overly stressed, the economic cost to our country amounts to millions of dollars per year in the form of sick leave, compensation, turnover and liability (Montilla, 1979). As an example, in 2004, the turnover rate for correctional officers working for the Georgia Department of Corrections was one of the highest in the nation, at approximately 20.45% (Graham, 2007). Unfortunately, these examples offer a less than sanguine view of job stress within prisons. Therefore, it was essential to correctly identify the primary factors that created stress, and offer a correct fix in order for this problem to be dealt with in a humane, expedient manner.

For the purpose of this research, stress was defined as the pattern of specific and non-specific responses an organism made to a stimulus event that disturbed its equilibrium and taxed or exceeded its ability to cope (Zimbardo, 1995). In this study, a multitude of factors that could potentially be attributed to correctional officer stress, ranging from lack of support from administrations, inadequate pay, security level of the prison, lack of job satisfaction, to role ambiguity and expectations were experienced.

This study was an effort to identify some of the main factors that created stress for correctional officers and the steps correctional institutions could initiate to help mitigate the impact stress had on its officers. The following two were of the research questions queried:

1. To what extent problems with administrators, inmates, and inadequate pay contribute to an officer's stress level? How does a prison's security level, an officer's gender, or job-satisfaction impact an officer's stress level?
2. What role, if any, does gender, ethnicity, or age, play in the propensity of how correctional officers cope with stress?

The correctional officer's job, known for its extreme psychological demands, and potential for physical altercations within a constrained, overcrowded environment, makes the officer subjective to some of the highest levels of job stress. These officers, who interact daily with inmates, have very little personal control over their work environment, yet are required to maintain professional relationships with inmates, while being alert to the possibility of assault against themselves, other staff, or inmates. All the while, officers must adhere to steadfast safety procedures in order to prevent escapes, or other violations of disciplinary rules (Cheek and Miller, 1983).

Research conducted within prisons has struggled to maintain continuous data gathering and analysis because once an element of the correctional environment was understood, it changed (Philliber, 1987). Traditionally, the correctional environment has been a sundry and apathetic field of study for research studies. In fact, of the 37 prisons contacted for this study, only three authorized the survey packages to be distributed within their institutions. Thus, correctional officers remain a difficult population for many researchers to study. The officer's

relationships with each other, inmates, administrators, and the public can be best described as complex (Tracy, 2004).

Since the early 1980s, the number of research studies involving correctional institutions have steadily increased, reaching its crescendo during the 1990s. However, until the last 20 years, few research efforts were solely concentrated on the causes of stress among correctional officers. Unbeknownst to many, early research about stress thrived because it was primarily identified with professionals whose work involved intense interpersonal contact or direct responsibility for others, e.g. teachers, social workers, police officers, etc... (Maslach and Schaufeli, 1993). The correctional officer, faced with a host of stressors, and charged with policing some of societies most violent offenders, played a secondary role to these more high profile professions.

Reminiscent of military operations, the prison's management style was put in place because institutions have conventionally been considered violent domains, where correctional officers could not, or should not, be trusted to make decisions on their own (Wright, 1997). The use of a strict chain-of-command, very rigid procedures, and a buttressed communications channel, guarantee prison staff, and not inmates, maintain control of the institutions. While working as a member of this very stern, multifaceted organizational structure, correctional officers are required to manage inmates who have a multitude of different personalities. Consequently, officers must adapt to a variety of diverse roles, depending on the situation or their specific job assignment.

Some people who become correctional officers are not psychologically prepared for the style of management utilized by the prison's administrations, or the everyday toil of working directly with inmates. Whenever officers are unable to deal with the daily pressure of their job,



they could undoubtedly endure stress-related repercussions in their professional and personal lives, e.g. poor evaluations, termination of employment, divorce, ulcers, migraine headaches, heart attacks, etc.... Furthermore, additional factors that could negatively impact newly assigned officers, who are not accustomed to the militaristic style of prison leadership, are rotating shifts, problems with inmates, working weekends and holidays, and difficulties with doling out disciplinary sanctions.

During the 1990s, universities and private researchers began to approximate the concept of stress on correctional officers, along with studying prison gangs and other problems impacting prisons. These previous research efforts afforded some of the world's top researchers significant information about the impact that working with inmates has had on correctional officers. In fact, Doctor Cheeks and Miller, pioneer researchers about the causes of correctional officer stress, opened the flood-gates to the abundance of research that ensued following their original investigative studies of the early '80s. Since Doctor Cheeks and Miller's initial research, universities and professional researchers have uncovered a plethora of factors that cause stress for correctional officers.

As a comprehensive coverage on correctional officer stress, this study thoroughly examined the works conducted by Eric Lambert, Scott Camp, John Hepburn, Kelly Cheeseman, Frances Cheeks, Robert Morgan, and many other professionals. Their data helped to better understand factors that create and mitigate stress for correctional officers. The findings from earlier research provided an important opportunity to expand the theoretical understanding of how stress impacted correctional officers.

This research randomly selected a cross-section of officers working at a minimum, medium and maximum-security level correctional institutions in a southern state. The research

design, an exploratory examination, tried to prove the hypothesis that inadequate pay, gender, and security level, along with several other independent variables, could impact an officer's stress level. Additionally, this research examined how stress is interrelated to burnout, absenteeism, and high turnover rates.

The officers were asked to complete four separate questionnaires. The first was an Occupational questionnaire, totaling 15 questions, using a 7-point Likert-type response scale, ranging from "No Stress" to "A lot of Stress." They were given a 22-question Maslach Burnout Inventory, using a 5-point Likert-type response scale, ranging from "Strongly Agree" to "Strongly Disagree." The officers were given a 15 question Carver Coping Strategy, using a 5-point Likert-type response scale, ranging from "Never" to "Always." Finally, the officers were given a demographic questionnaire, totaling 13 questions.

The survey measurements were expected to indicate greater amounts of stress for correctional officers working at maximum-security-level prisons, and female officers, as opposed to those officers who worked at prisons with lower security levels and male officers. This study anticipated that stress would parallel the security level of the correctional officer's specific prison, with a measurable outcome of an officer's self-report perception of well-being measures, very similar to earlier research conducted on correctional officer's stress. Some of the areas covered under these surveys included risk of being injured on the job, not receiving adequate pay, job satisfaction, work overload, working shifts, and an officer's frequency of exercising.

During the qualitative portion of the survey, on stress and coping, a grounded theory method was used to generate a theory through an inductive examination of information. The coping strategy and stressors for each officer were coded and analyzed in a method that did not

permit individual officers to be identified. Additionally, no interviews were conducted during this research.

The research was completed by conducting an explanatory analysis of all data obtained. The analysis clearly highlighted several of the independent variables that could be responsible for creating stress for correctional officers. The overall findings of this research have been compiled for review.

## LITERATURE REVIEW

During his studies of the brutal effects of stress, the renowned researcher on stress, Hans Seyle, defined stress as a bodily reaction to any serious demands placed upon it. Seyle (1976) lengthened this definition by specifying stress was caused by negative and positive situations that upset the body's balance. Conversely, moderate levels of stress can function as a motivating force to prompt officers to make adaptive transformations.

Seyle (1976) emphasized that though optimal stimulation was healthy, and possibly necessary, people are usually equipped with a limited resource of adaptive energy, which permits them to cope with stress. However, when a person's supply has become exhausted, the inception of severe physical problems could appear to be sudden, if symptoms were not previously attended to (Seyle, 1976). Therefore, stress culminated when a person's situational demands exceeded their biological, psychological, and social resources.

Historically, working within a correctional institution has often been perceived as being a very stressful profession. The job stress of correctional officers can be derived from work overload, excessive job demands, too little stimulation, or other organizational factors, e.g. role ambiguity, lack of participation in decision making, etc... (Lindquist and Whitehead, 1986). Stress, if allowed to persist for long periods, could eventually culminate in grave damage being caused to a person's job performance, health and personal life. In fact, the inability to cope

effectively with psychological distress could promote a decline in a person's sharpness, empathy, and sensitivity (Welch, Medeiros, and Tate, 1982).

There have been many research studies conducted focusing on inmates confined to penal institutions across America; however, until the past 30-35 years, few research efforts focused on uncovering how stress affected correctional officers. Traditionally, correctional officers were considered a challenging profession to study because of the makeup of the organizational formation within a correctional atmosphere that disseminates an unwillingness to work with researchers. In spite of the public's perception about the job description for correctional officers, little was known about the emotional investment paid for by correctional officers (Tracy, 2004).

A thorough review of the literature has revealed some of the primary causes of stress for correctional officers. To further expand this understanding, the current study attempts to demonstrate what factors create stress for correctional officers at three southern prisons, representing multiple security levels (minimum, medium and maximum), and how stress could impact officers. Furthermore, this study suggests some coping solutions that could help mitigate the effects of stress and actions prison administrators could take to positively influence an officer's ability to successfully cope with stress. Let's now look at the first independent variable that could impact a correctional officer's stress, the inmates.

Interaction with Inmates. Since the inception of American prisons in the early nineteenth century, inmates and correctional officers have co-existed in a symbolic affiliation. The usefulness of correctional officer's coping strategies, when dealing with inmates, has the potential to result in an interactive series where the coping modifications of one group inherently influences the amount of stress felt by the other group. Consequently, when officers get caught-

up in the inmate's labyrinth buttress environment, there is a real possibility for the officer to become overly stressed.

Throughout American history, incarcerated individuals have been notorious for nefarious schemes of trying to gain privileges they are not entitled, via pilfering, deception, dishonesty, and even intimidation. Conversely, over the last 25-30 years, researchers have investigated the impact contact with inmates has had on correctional officer's stress levels. These previous studies have unmistakably shown direct contact with inmates has affected correctional officer's stress levels (Cheek and Miller, 1983). As such, when an inmate attempted to gain privileges he or she's not entitled, coupled with an inmate's overall lack of empathy, an enormous amount of stress could be created for correctional officers.

Research conducted by Whitehead and Linquist (1986) suggested interaction with inmates was not stressful, per se; however, they argued it was the type of interaction that created the problems. Lombardo (1981) found only interaction with inmates that was of a dangerous or insulting nature was problematic for correctional officers. Typically, in these types of situations, officers react by developing different coping mechanisms, such as becoming an authoritarian figure while interacting with inmates.

Morgan (2002) suggested that positive inmate contact might actually be a fundamental bulwark for correctional officers against stress. Positive relationships with inmates could essentially contribute to a healthier working environment. In a later study, conducted by Morgan (2009), it was shown an inmate's demands and manipulation could have serious implications on some correctional officer's stress levels.

Morgan (2002) found direct contact with inmates could lead to stress for some correctional officers. Research has revealed contact with inmates could be more stressful than

contact with probationers or parolees, because of the involuntary nature of the interaction and the danger, or perceived dangerousness, in a prison setting (Cheek and Miller, 1983). Comparable to the research findings of Whitehead and Linquist, Morgan (2002) believed the quality of interaction, as opposed to the quantity of interaction, might be of added importance when explaining the effects of inmate contact on correctional officers.

Research conducted by Brodsky (1982) suggested prison reform and legal regulations severely restricted many procedures prison officials could use to control an inmate's behavior. These restrictions could potentially be perceived by correctional officers as vacillating, or limiting their authority, while enhancing an inmate's rights and power. Lombardo (1979) related officers typically reported if they wanted something changed the best way was to work through the inmates, whose demands were more likely to receive attention.

Black (2001) found inmate matters, such as demands, requests or complaints, generate the most stress within a correctional setting. Oddly, Black's research discovered inmate-related stress was not experienced by security staff members who had significant amounts of interaction with inmates. However, those officers who had short duration's of interaction, coupled with less experience with the inmate population, were the ones who suffered the most stress because they were not as well equipped and experienced to deal with the inmate population. Let's now discuss how an officer's stress can be impacted by their concern for personal safety.

Personal Safety: Every year throughout America, correctional officers are hurt while in the line of-duty. The possibility of violence was an extremely vital stressor for correctional officers because they are subjected to hazardous and stressful work environments (Bureau of Labor Statistics, 2007). Numerous studies have suggested the perceived dangerousness associated with correctional officer work increased stress levels (Brodsky, 1982).

Moreover, with the exception of police officers, correctional officers reported the highest number of workplace non-fatal violent incidents per 1,000 employees (Finn, 2001). Between 1992 to 1996, approximately 58,300 non-fatal incidents involving correctional officers were reported (Finn, 2001). The reported incidents included stabbings, sexual assaults, hostage taking, and riots (Peternelji-Taylor and Johnson, 1995). Additionally, the violence included verbal threats and daily swearing by inmates. Officers who are not mentally prepared to deal with these stressors could be rendered ineffective on the job, and might even jeopardize the safety and security of others within the prison (Finn, 2001).

During a study of approximately 245 correctional officers working at a medium security prison, Triplett, Millings and Scarborough (1996) discovered safety problems contributed to the greatest quantity of variation to work-related stress. Shamir and Drory (1982) related 75% of Israeli correctional officers considered possible violence as the most stressful facet of their work. Similar numbers have been recorded in the United States (Philliber, 1987).

In a survey of approximately 155 correctional officers, Cullen, Link, Wolfe, and Frank (1985) suggested that alleged dangerousness was appreciably connected to job dissatisfaction. During testing of juvenile correctional officers, Auerbach et al. (2003) revealed concerns regarding physical strain and dangers created the highest stress scores among juvenile correctional officers relative to workers in other vocations. Finn (2000) conducted a survey in the United States that highlighted inmate assaults against prison staff at federal prisons had increased. Finn's data showed between 1990 to 1995, the number of attacks skyrocketed nearly one-third, from 10,731 to 14,165.

In a study by Armstrong and Griffin (2004), the association of perceived stress among the treatment staff and correctional officers were compared. The study discovered the assessment of

workplace safety was the most significant issue for correctional officers; however, treatment personnel did not consider workplace safety as the most significant problem. It was expected since treatment staff personnel were in contact with inmates, their stress levels should be similarly impacted. Armstrong and Griffin (2004) recommended when looking at this problem in the future, the study should consider the personality of the person and the nature of the job.

Normally, medical personnel administer treatment for an inmate's ailments, and have the authority to excuse inmates from work details for medical purposes. Whereas, correctional officers have naturally adversarial interactions with inmates, e.g. directing inmates to accomplish specific tasks, line-up for inspections, clean living areas, maintain moderate levels of noise, etc.... Therefore, inmates could be more inclined to be more kinder and gentler when interacting with treatment staff, since medical staff doesn't typically burden inmates with discipline and structure.

Since the 1980s, the propensity for inmates to carry potentially deadly, infectious strains of diseases has emerged into a major public health concern for correctional officers. In fact, over the past 35 years, the concern of contacting blood borne pathogens within the prison system has increased substantially. Lombardo (1981) reported the risk of Acquired Immune Deficiency Syndrome or Hepatitis-B infection have drastically increased because of the influx of inmates who are drug addicts. Some of the other relevant health problems faced by correctional officers include communicable diseases such as human immunodeficiency virus, Hepatitis-C and tuberculosis. Let's now look at how the security level of the prison could impact an officer's stress level.

Prison Security Level: The ability to provide care, while maintaining steadfast control of inmates, has emerged into a herculean task for correctional officers. Over the past three decades,



researchers have increased their examinations of the impact a prison's security level could have on correctional officer's occupational stress. Some studies have suggested a prison's security level was significantly correlated with correctional officer stress and perceived dangerousness (Cullen, 1985). Consequently, one of the central premises of this study was correctional officers who were employed at maximum-security level prisons could experience greater levels of stress than those officers who worked at prisons with lower security levels.

State and county correctional facilities are categorized by security level, which determine the type of offender, e.g. history of violence, security needs, etc..., who are housed within the specific institution. Those inmates assigned to minimum-security-prisons, the lowest level, are inmates who normally abide by prison regulations. These inmates present a minimal escape risk, and are a negligible threat to the community and staff.

Medium-security level is the next level of security level for state prisons. These institutions house the largest amount of offenders. Inmates assigned to medium-security levels prisons normally do not have any major adjustment problems, and most work outside the guard line, but must be under constant supervision.

The state's highest security level prisons are maximum-security. These prisons house inmates who are referred to as "close security inmates." These inmates are escape risks, and could have assaultive criminal records, or detainers for other serious crimes on file. Inmates designated as close security inmates do not leave the prison grounds and must be constantly supervised by correctional officers.

As an investigative effort to uncover the impact of a prison's security level, Lasky (1986) surveyed 147 male correctional officers working at eleven federal institutions, representing different security levels. Although the research discovered a significant relationship between an

officer's concern regarding personal safety and security levels, there were no noteworthy differences in stress across security levels. Correctional officers were more apprehensive about their personal safety while working in higher security level prisons, but the differences in security level did not precipitate their reported stress. Additionally, other researchers have been unsuccessful in trying to find a significant relationship between security level and correctional officer stress (Morgan et al., 2002) or job dissatisfaction (Hepburn and Albonetti, 1980).

Conversely, in an assessment of how organizational attributes may impact occupational stressors, Cullen (1985), found higher levels of stress and more job dissatisfaction among correctional officers working inside maximum-security-prisons. It was suggested the likely reasons for the higher levels of stress was because of higher levels of perceived dangerousness. Surveying correctional officers in a southern prison, Cullen specifically looked at whether working in a maximum-security-level prison impacted stressors, coping factors, or the general stress of the work environment. It was discovered greater amounts of stress occurred for those officers while they were actually inside the institution; however, their stress levels dissolved once they departed the institution.

Cullen (1985) did an evaluation to determine if the alleged hazardousness of working within a high security prison had an impact on job dissatisfaction, and discovered this independent variable to be invasive with assessment of job dissatisfaction. Cullen suggested this phenomenon might be because of the correctional officer's belief the assessment of risk could be concomitant to higher levels of security. Accordingly, the mere threat of violence, victimization, or danger was enough to impact job stress and satisfaction. Now that we've discuss how a prison's security level can impact an officer's stress levels, let's look at how interpersonal conflicts might affect an officer's stress.

Interpersonal Conflicts. Interpersonal conflicts could develop when two people have an argument or disagreement. These conflicts might be verbal altercations that could potentially spiral into physical confrontations. Typically, these conflicts have the propensity to create an acrimonious work environment, even for those not directly involved in the dispute. As an example, a correctional officer could get into an interpersonal conflict with fellow officers, administrative personnel, a supervisor, or an inmate.

Research conducted by Lombardo (1981) suggested officers did not derive satisfaction from associations with members of their work group. Lombardo found correctional officers often worked against one another instead of offering assistance. Finn (1998) discovered approximately 20% of officers surveyed viewed other staff as their highest cause of stress. As an example, correctional officers typically compete for limited assignments and promotions within the prison (Brodsky, 1982). Matterson and Ivancevich (1982) related the greatest of stressors normally come from conflicts with supervisors because the supervisor has the ability to influence a person's pay, career progression, and rewards.

Supervision. Correctional officers depend on their supervisors to assist them handling the challenges of their job (Poulin, 1994). Correctional supervisors have the ability to positively, or negatively, influence an officer's work, evaluations, performance raises, and career progression (Matterson and Ivancevich, 1982). The outcome offered by Thomas and Ganster (1995) revealed organizational methodologies, such as supervisory encouragement, could lessen many effects of work struggles, and potentially play a role in the employee's ability to mitigate the stress that culminated from conflicts. Matterson and Ivancevich (1982) listed five ways supervisors could create a stressful work environment for correctional officers. Typically, officers experienced stress when they believed their supervisor did any of the following: 1)

showed any favoritism, 2) demonstrated poor communication skills, 3) proved untrustworthy, 4) did not listen to an officer's problems, and 5) did not provide performance feedback.

Cheek and Miller (1983), discovered correctional officers accredited much of their stress to inadequate communications with their supervisors. The findings of Cheek and Miller are comparable to that of Kroes et al. (1974), during their job stress research of 100 officers in Cincinnati. Kroes (1974), for example, found that conditions affecting an officer's sense of professionalism, such as reprimands from supervisors, were more stressful than life-threatening circumstances. Additionally, in another study, Margolis, Kroes, and Quinn (1974) uncovered that nonparticipation in decision making was the most salient stressor. Margolis's interpretations would later be validated by a Swedish study of white-collar workers (Wahlund and Nerell, 1976).

Lack of Input into Decision Making. Research evinces the notion prison administrators could help reduce stress experienced by correctional officers by permitting them to partake in some of the decision-making processes. As an example, some studies have suggested correctional officers who choose to work a distinct shift had fewer troubles than those workers who were involuntarily assigned to a work specific shift (Barton, 1994). Very similar to Barton's findings was research conducted by Slate, Vogel, and Johnson (2001) that showed correctional officers who perceived they had important input into decisions experienced less occupational stress.

Whitehead and Lindquist (1986) performed a survey formatted very similar to the Bureau of Prisons social climate survey. Their survey data suggested when officers weren't allowed to take-part in decision-making, the officers felt an inadequacy in personal accomplishment, along with decreased job satisfaction. In addition, Whitehead and Lindquist' data discovered approximately 54% of officers felt their careers were stagnant. Margolis, Kroes, and Quinn

(1974) examined sources of stress for several different occupations, and discovered across all occupations, non-participation in decisions affecting the worker to be the most significant source of stress and this was highly correlated with low self-esteem.

Research by Lambert (2006) suggested a lack of participation in decision-making could be directly linked to the amount of job stress experienced by correctional officers. Lambert's study found low job control, lack of communication, and procedural justice were all associated to upper levels of reported job stress. Lambert's research illustrated a lack of input into job procedures created stress, and ultimately lowered job satisfaction and organizational allegiance.

The Job-Demands Control (JDC) model, considered one of the most prominent models in research, involved the association between work and stress (Karasek, 1979). The model brought awareness of how work uniqueness might not be linearly connected with worker health, and they could unite interactively in relation to health (Cox, 2000). The JDC model was based on the belief job control, or ability to make decisions, was critical with determining possible harmful causes for job stress. When an officer perceived he had job control, coupled with decision-making ability, it positively impacted his physical and mental health (Rodriguez, 2000).

The JDC model consisted of two main prognostications. The initial forecast of the JDC model was the most harmful pressure reactions would occur when job difficulties were high and worker's control were low. The other prediction was work motivation, learning and growth would occur in scenarios where both job demands and worker's control were high (de Jonge, 2000). The JDC model worked off the principle that highly stressful occupations produced a primal instinct, e.g. increased heart, adrenaline, and breathing rates, etc..., that enabled the body to counter these demands.

Unfortunately, another premise of the JDC model was if there were environmental restraints, e.g. inability to control or make work-related decisions, etc..., stimulation could not be directed into a potent coping response. Thus, when strain went unresolved, it could collect and build-up, and culminate with an employee developing anxiety, depression, psychosomatic complaints and cardiovascular disease (Dollard, 2003). It is Karasek's belief that employee anxiety could be reduced if they had the authority to make decisions, and were afforded an opportunity to use a variety of skills to do their jobs (Cooper, 2001). Let's now look at how role conflict might affect an officer's perceived stress levels.

Role Conflict. Role conflict, because of the constantly changing responsibilities of correctional officers, has been potentially one of the most extensively covered sources of stress in prison literature. In fact, in 1993, in an effort to encourage professionalism inside penitentiaries throughout the United States, the American Correctional Association passed a resolution to promote the use of the term correctional officers instead of prison guard. The reason for this change was because the term correctional officer better reflected the role and responsibilities of custody and control, which required extensive interpersonal skills, unique training and education (American Correctional Association, 1993).

Previous research has suggested role conflict typically occurred when an employee was given conflicting orders, or there was a disagreement on how things should be handled (Rizzo, House, and Lirtzman, 1970). Role conflict culminated when there were violations of the principles of single responsibility, the unity-of-command, and the chain-of-command principles, thus, creating a decrease in an officer's satisfaction, and in the effectiveness of the organization.

The types of situations that exemplified role conflict were those creating dissimilarity between the employer-defined role of the employee and the employees' own value system, time,

resources, and capabilities. It normally happened when an officer had to fill numerous incompatible roles to meet the demands of the job, having to work under different policies or conflicting requests, or having to work under harsh standards for evaluation. Additionally, role conflict within the correctional institution could be the skirmish involved with the unification of the custodial responsibilities and inmate treatment.

Officers are trained to follow standard operating procedures (SOPs), rather than to use discretion and judgment to enforce rules, while preventing the escalation of volatile situations. Unfortunately, not all situations that occur inside prisons are covered by SOPs. Many situations required officers to use their own discretion. Whenever an unusual situation occurred, even if it was properly managed, there still remained the possibility a rogue inmate could allege officers showed favoritism towards another inmate. Understandably, because of the role of the correctional officer's job, and the potential of these types of situations, officers could incur trouble trying to appease both administrators and inmates, feeling like they're caught in the middle of a no-win-situation.

There are typically two types of role conflicts encountered by correctional officers, intra-role or inter-role conflict. Intra-role conflict happens when an officer has received different information on how to accomplish a specific assignment. As an example, when an officer was briefed to accomplish a specific task by one supervisor, then later, was instructed to do something completely different by another supervisor, intra-role conflict could occur.

Conversely, inter-role conflict occurred when an officer knew what was required of the job, yet his own needs and values interfered. One example would be an officer's requirement to maintain a safe and secure environment, yet the officer's insatiable desire to participate in the rehabilitative process of inmates interfered with his or her security duties. Also, when an

officer's required duties come into direct conflict with his own personal desires, his or her ability to withstand the impacts of stress could be seriously emasculated.

Shamir and Drory (1982) attributed role conflict as one of the major sources of stress for Israeli correctional officers. They felt role conflict happened when the simultaneous occurrence of two or more incompatible sets of pressures, apropos to the role of the occupant, were the expected behavior. Role conflict, within the prison system, stems from inherent contradictions, pressures or anticipation from different parties, such as administrators, wardens, social workers, or even inmates.

In one of the first large scale studies on correctional officer stress, Cheek and Miller (1983) analyzed 143 correctional officers and identified role conflict or a "double bind," as a major contributor to officer stress. Cheek and Miller emphasized "double bind" was fashioned by administrative demands on correctional officers to increase control over inmates, coupled with a deficient amount of administrative support. Numerous studies have shown role conflict, and lack of backing from administrators, have constantly been a source of stress for correctional officers. Let's now look at what many past studies believe could create the most stress for correctional officers, lack of administrative support.

Lack of Administrative Support. Lombardo (1981), and Cheek and Miller (1983) contend the primary source of stress for correctional officers was directly related to how officers felt they were treated by administrations. As an umbrella term, "administrative" sources of stress encompassed the following: 1) vague guidelines for job performance, 2) inadequate communications from management, 3) rules constructed by people who are not familiar with the actual work setting, 4) insufficient participation in decision making, and, 5) not enough administrative support. Cheek and Miller (1983) named it the double-bind theory of correctional



officer stress, a predicament noted in numerous other studies conducted about correctional officer's stress.

Correctional administrators should be attentive to the problem associated with procedural justice and its impact on correctional officers. An abundance of studies have suggested there are a large percentage of correctional officers who have an unenthusiastic attitude about their administrative staff (Toch and Klofas, 1982). Consequently, one forthwith stressor for correctional officers was believed to be stress created by the institution's administrators.

Procedural justice goes to the nucleus of legitimacy. Correctional officers do not want procedures that deal with them unfairly. Officers want things to proceed in a fair and just manner. As the fulcrum of the prison system, administrators should examine the various procedural decision-making processes within their organization to ensure these procedures are reasonable. There should not be any discrimination or bending of rules.

All officers should expect the same fair process, regardless of what takes place. Procedural justice saturates almost all features of the prison, comprising evaluations, promotions, pay increases and even discipline. In order to improve acumen of procedural justice, the literature contended there was a need to allow workers to have an input into the process (Giacobbe-Miller, 1995). When officers felt they weren't trusted, or weren't being treated correctly by administrators, they could experience an enormous amount of stress.

Research conducted by Maslach and Leiter (1997) suggested close observation of correctional officers, by administrations, could lessen an employee's capacity to adapt or take initiative and could result in the officer's view of a lack of control. Findings by Toch and Klofas (1982) estimated that approximately 42% of correctional officers in the United States felt prisoners were treated better by their own administrators than they were. Toch and Klofas felt

the poor relationship between correctional officers and administrators constituted a serious problem because feedback and support from administrations were critical for officers to satisfactorily perform their jobs, especially if structured role problems existed.

The salience of indiscriminately issued orders by prison administrators should not be underestimated. If orders by administrations were contradictory to earlier instructions, an officer's frustration and stress levels could be severely impacted. Furthermore, when administrative staff lacked any credible experience working directly with the security of inmates, correctional officer's aggravation levels could be intensified. In such cases, officers could feel administrators do not have the capability to implement positive changes, when necessary, because they lacked experience working within security.

It has been noted the informal structure of an organization could potentially offset administrative stressors, and workers in public service organizations normally have the resources to withstand managerial direction (Lipsky, 1980). Yet, the fundamentally challenging nature of worker-management relations still could generate a tremendous amount of stress. Likewise, the findings of research conducted by Griffin and Hepburn (2005), show correctional officer's level of commitment to the institution was strongest when officers felt they had institutional backing. Griffin and Hepburn (2005) suggested officers were more willing to exert maximum effort, felt a stronger feeling of loyalty, and identified with the goals and principles of the institution, when they believed they had the full support of the organization.

Research conducted by Finn (2000), on correctional officer's stress discussed how stress impacted safety and the monetary cost for correctional institutions. Some of the primary forms of organizational stress reported included shift work, understaffing, and lack of support from administrations.

Morgan (2002) conducted research at a correctional institution located in a southwestern state and exposed some of the greatest stressors for correctional officers. The study suggested a lack of support from administrations, and deficient recognition for an officer's job performance had a harmful impact on an officer's stress levels. Research by Lambert and Hogan (2006) found job distinctiveness was much more important than personal characteristics when it came to shaping an officer's stress levels. Their research clearly demonstrated the organization itself shaped behaviors and stress levels more than an officer's individual characteristics. Moreover, Philliber (1987) revealed that an officer's mind-set was impacted by organizational characteristics, such as the administrative goals of the institution, management styles, security level, shift assignment, and longevity within the field of corrections.

According to Lambert and Hogan (2006), some correctional officers related they thought administrators were more partial towards inmates than correctional officers. Officers interviewed by Lambert and Hogan (2006) stated they felt they were one step away from the inmate population, as correctional proletariats. Furthermore, officers reported they felt they weren't respected, and viewed many of the orders they received as opaque or paradoxical to previous orders. Let's now look at how the potential for lack of job satisfaction could have an impact on an officer's stress.

Lack of Job Satisfaction. Specter (1996) pointed out job satisfaction was simply the extent to which someone liked his or her job. It is in the best interest of prisons to have satisfied and dedicated correctional officers. Job security, pay increases, stress-free environments, and salaries have typically been exemplified as extrinsic mechanism to impact job satisfaction. Earlier research has suggested job satisfaction was a salient forecaster of correctional officer's intent to quit, and for voluntary turnover (Lambert and Hogan, 2006).

Dissatisfaction with work could be connected to a continuum of harmful consequences, e.g. poor job performance, family problems, early mortality, etc.... In contrast, job satisfaction has been shown to contribute to better job performance, compliance with organizational rules and goals, less role conflict and can even ameliorate an officer's healthy life style. Lambert, Hogan, and Barton's review on the association of correctional officer job satisfaction stated, "supervision and administrations are important dimensions of work environment accounting for correctional job satisfaction" (2002, p. 129).

The research conducted by Griffin and Hepburn (2005) suggested correctional officers had a greater commitment to the institution when they felt they were well treated, supported, and respected by the organization. Further, these findings suggested an officer's commitment to an institution was based on their perceived fairness with procedures used to determine work outcomes, pay increases, promotions, and consistency when doling out punishment. Therefore, according to reciprocity principles, that favorable treatment from the organization gave officers a sense of responsibility to react in an equally positive manner.

Griffin and Hepburn (2005) found correctional officer's steadfast devotion, because of a reaction to socio-emotional needs, had an impact on an officer's commitment to the institution. An officer's job satisfaction, coupled with organizational commitment, arbitrated the effect of personal and work environment factors. In fact, research has suggested organizational commitment interceded on how an officer's job satisfaction impacted the officer's intention to quit.

In a critical literature review that involved research into Israeli corrections, Shamir and Drory (1982) examined how occupational tedium (boredom), including emotional exhaustion,

and negative attitudes towards officers, proved to be very persistent. Tedium, or boredom, was an experience concomitant to the individual's familiarity within the prison. It was believed to be closely related to the occupational sphere with its tensions, conflicts, anxieties, and frustrations. Now, let's look at how an officer's tenure within a prison can have an impact of stress levels.

Tenure: Given the numerous stressors found in correctional settings, researchers scrutinized whether length of employment could be related to the stress correctional officers experienced. Some studies proposed the longer a person had been working within corrections, the greater the amount of stress they would experience (Lasky, 1986). Yet, some researchers have suggested tenure might not be related to a correctional officer's stress.

The majority of the studies revealing tenure had no impact on a correctional officer's stress were conducted during the 1980s, while those studies suggesting stress was related to tenure, were conducted during the 1990s. Though some findings were paradoxical, with regards to stress and tenure, studies since 2001 have suggested there could be a correlation between longer tenure and stress.

Gender: Since the 1970s, there's been a steady increase in the number of females entering the field of corrections (Walters, 1992). As noted from qualitative studies, women who work in corrections face many more obstacles than men. As the number of women entering the field of corrections, as officers, has grown, so too has research concerning whether men and women differ in work experience while working inside a prison. One of the first studies conducted on the demographic differences between men and women revealed that: 1) women were more educated, 2) lived in urban areas, 3) had less military/law enforcement experience, and 4) most likely had been divorced, or separated, more often than their male counterparts (Jurik and Halemba, 1984).

It was initially believed women would suffer more stress because of sexual harassment from inmates and other officers (Etheridge, 1984). Earlier research revealed female correctional officers tended to report co-worker and supervisor problems as major sources of stress, and these factors were credited as being more frequent sources of stress for females than for males (Etheridge, 1984). Yet, a study conducted by Lambert (2007), suggested men were more prone to believe they worked a very stressful, treacherous job.

Lambert (2007) conveyed that women participating in his study indicated their jobs were not dangerous, whereas, their male counterparts believed their jobs were dangerous. Though no empirical studies have proved it, it is believed this phenomenon could be because women believed they were less likely to be assaulted by inmates. The possibility of a code of chivalry among inmates might have influenced female correctional officer's perception of a lack of danger.

The bulk of the research about gauging the views, attitudes and behaviors of female and male correctional officers were guided by two hypothetical models, the importation-differential experience model, and the work-role prisonization model. The main foundation of the first model, the importation-differential experiences model, was a wide collection of demographic factors that influenced people's opinions, views, attitudes and behaviors (Van Voorhis et al., 1991). The second model, referred to as the work-role-prisonization model, was where the correctional work environment helped influence an officer's perceptions, views, attitudes, and behaviors, despite distinct individuality (Jurik and Halemba, 1984; Van Voorhis et al., 1991).

In support of the importation model, research noted men most likely sought a career in corrections for a steady income, security and their ability to control inmates. Conversely, women were more likely to choose to work in corrections because they wanted to help salvage

offenders and to work with others (Jurik and Halemba, 1984). However, there were experimental data presented to gainsaid the importation model, while supporting the work role-prisonization model.

Yet, some studies have suggested job stress does not vary by gender. Dowden and Tellier (2004) noted in a meta-analysis, an officer's gender only had a tenuous correlation with job stress for correctional officers. A number of studies noted female correctional workers did not change in their degree of job stress when compared to their male counterparts (Blau, Light, and Champlin, 1986).

One distinct difference observed between male and female correctional officers was the overall amount of job stress reported. During two research studies of southern correctional facilities, it was discovered female correctional officers reported greater amounts of stress, and strain, than males (Cullen, 1985). In another study of staff at a southwestern correctional facility, work-family conflict was a notable source of job stress for female staff, but not for male employees (Triplett, Mullings, and Scarborough, 1999). Their research showed larger amounts of stress among females; however, female correctional officers professed greater supervisory support than men did.

In general, research conducted on gender differences for corrections have often varied. Some studies suggested there were differences between men and women; conversely, other studies have shown there are no gender differences between correctional officers in their beliefs and work attitudes. In a review of the literature, Britton (1997) related qualitative studies normally established gender was noteworthy in how correctional officers professed their work environments, and quantitative studies usually exposed no dissimilarities. However, this was not always the case because several quantitative studies discovered no distinctions.

It was perceived women correctional officers faced enmity by male counterparts who believed females should not be working in corrections because of the restrictions placed on them. Carlson (2003) argued male officers resented the presence of women co-workers in men's prisons because women were thought to have inadequate brute strength in reacting to emergencies, and weren't be dependable backups in dangerous inmate situations. Additionally, previous research discovered women were far more likely to have been victims of sexual harassment than were male officers (Beck and Stohr, 1991).

Similarly, Lambert and Hogan (2006), suggested women typically reported more job stress than their male counterparts. These findings were in accord with results from previous studies. An explanation for female workers who reported greater stress could have been attributed to the hostile work environment faced by women working inside prisons. Jurik and Halemba (1984) reasoned the price for the female correctional officers continually trying to prove themselves in the macho environment of correctional institutions was work-related stress.

Work-Overload and Work-Underload: A prerequisite for being a correctional officer was the ability to multitask, because of the large number of inmates officers work with on a daily basis. Work-overload has often been cited as a common phenomenon among correctional officers. When prisons are understaffed, it could lead to serious consequences, e.g. an inability for officers to get time off from work, or complete work assignments in a reasonable manner. Finn (1998) discovered when officers were confronted with too much overtime it led to burnout, and a complacent work ethic.

When officers are assigned different task simultaneously, work-overload could occur. One example of how work-overload might happen would be when an officer attempts to adjust to each inmate's specific problems, while attempting to prioritize a supervisor's assigned task.



When work-overload occurs, it could culminate in poor decision making, indecisiveness, or increased errors by correctional officers.

Institutions where staff were chronically undermanned experienced a phenomena known as work-overload. Shamir and Drory (1982) pointed out how work-overload could become a source of stress for correctional officers. Shamir and Drory suggested work overload occurred when the expectations anticipated exceeded the amount of time, resources, and capabilities available for the accomplishment of the task.

Conversely, work-underload could occur when correctional officers finish their assigned duties, and have a considerable amount of inactive time. When officers experience work underload, it could potentially create monotony. As Shamir and Drory (1982) pointed out, boredom has the potential to lead to critical job problems.

Normally, when people become bored, stress emerges into a byproduct. Work-underload could result because of a lack of physical activity, or even deficient mental stimuli. Research by Matterson and Ivancevich (1982) suggested when correctional officers experienced work-underload it led to officers becoming depressed because they weren't meeting their full potential.

Role Ambiguity. Role ambiguity was described as an uncertainty, or lack of information, in carrying out the duties and responsibilities of a given job (Rizzo, House, and Lirtzman, 1970). Inside correctional facilities, role ambiguity was generally an officer's struggle between helping inmates and guarding them, and the uncertainty of having to go by SOPs, while trying to be flexible. Role ambiguity precipitated the probability an officer would: 1) turn out to be dissatisfied with his job, 2) experience anxiety, 3) had a distorted reality, or, 4) performed less effectively.

More often than not, role ambiguity occurred when correctional officers felt an ambiguity regarding the expectations, responsibilities and priorities about their job. Correctional officers were normally instructed to use their own judgment while handling situations, however, if something goes awry, the officer's actions will certainly be scrutinized and questioned. Furthermore, if upon investigation, it is discovered an officer took the wrong course of action, the end-result could be disciplinary action taken against the officer, or even termination of employment.

When an employee was not given sufficient information, or direction, about how to carry out his duties and responsibilities, role ambiguity occurred (Rizzo et al., 1970). Occasionally, officers were subjected to conflicting roles of rehabilitation, punishment, and confinement (Lasky et al., 1986). The mounting expectation for officers to multi-task, coupled with the lack of control over their work environment, could enhance the amount of stress experienced and the officer's potential for burnout (Gerstein, Topp, and Correll, 1987; Garland, 2002).

Numerous studies have suggested there was a significant relationship between role ambiguity and work-related stress (Shamir and Drory, 1982). During their research with approximately 258 correctional officers, Whitehead and Lindquist (1986) discovered role ambiguity drastically abridged job satisfaction, while simultaneously increasing job stress. As an example, correctional officers working with inmates housed in a mental health ward would have to deal with these inmates in a different manner versus the way they'd deal with those inmates who were housed in general population. In order to properly handle mentally impaired inmates, officers would need to transition from an authoritative figure, into that of a rehabilitative function.

Research conducted by Priestley (1972), in England, suggested the way officers behaved while performing their assigned duties might not necessarily correspond with their outlook. These discrepancies amplified the potential for role ambiguity, which in turn demanded sustained efforts for resolution. Priestly (1972) pointed out training for custodial work was the primary training correctional officers in England received. There were feelings among those English correctional officers that although custody work was of a great concern, their jobs were of very low significance.

Lambert and Hogan (2009), further suggested role ambiguity and work overload were the product of workplace factors, and not the result of an officer's personal deficiencies. Lambert argued workplace changes could help with the problem of work overload and role ambiguity. The findings of their research pointed to how administrations could help the process by making concerted efforts towards ensuring the working environment of correctional officers was less inhospitable.

Several researches have suggested a lack of support from administrations, coupled with role ambiguity, created feelings of exhaustion for correctional officers. An officer's level of stress from administrative imprecision, lack of support and role ambiguity had a devastating impact on correctional officers. Lindquist and Whitehead (1986) related the following findings during their research:

The impact of administrative practices on job stress and burnout were dramatic. One interpretation of this finding is supported by the double-bind theory of correctional officer stress by Cheek and Miller (1983). Correctional officers primarily experienced stress through administrative matters such as lack of clear guidelines, lack of

administrative support, lack of participation in decision making, crisis management, and inoperable rules. The results culminated in officers feeling like they were caught in the middle between administrators and inmates (p. 106).

Whitehead and Lindquist (1986) conducted research on correctional officers from a southern state and discovered direct contact with inmates was not considered too distressing for these particular officers. Their study proposed role ambiguity, lack of job satisfaction, deficient support from administrations, and an officer's age had a strong correlation with stress and burnout. However, research data suggested administrative practices were not necessarily an overriding source of stress for correctional officers. It was managerial desire for control and accountability that were viewed as conflicting with correctional officer's desire for autonomy and discretion.

Age: Among the many independent variables that created stress for officers, researchers have examined the impact of age. Numerous researches have hypothesized age had an attenuating impact on role conflict, absenteeism, stress, job dissatisfaction, and burnout. Maslach (1981) discovered younger workers usually scored higher on burnout than older workers.

Past research has suggested younger workers had greater job dissatisfaction than older workers, and Maslach's interview data demonstrated younger workers, who were unable to cope, were inclined to depart human service work completely (Maslach, 1981). Cherniss recognized Maslach's discovery on the relationship between age and burnout. He posited age could be important as an indicator of experience when he stated, "...prior experience with the task, the stressor, or the situation attenuates the effects of stress" (Cherniss, 1980).

During research conducted by Whitehead and Linqvist (1986), age was selected over seniority as a study variable because of Maslach's argument and because separate analysis showed age had a stronger impact on the model variables than seniority. Whitehead and Linqvist (1986) studied 241 correctional officers, and discovered younger officers reported more work-related stress and burnout than the older correctional officers. Additionally, Morgan (2002) revealed older officers, more often than not, reported stronger feelings of personal accomplishment than younger correctional officers.

Conversely, some researchers uncovered the opposite results from their studies. In one study involving 166 correctional officers, Gerstein et al (1987) discovered older officers had reported greater amounts of stress levels. Research conducted by Lambert and Hogan (2006), revealed as an officer's age increased, so did levels of job stress. One potential justification for this phenomena was older officers could have become burned out from the anxiety filled environment of a prison, or increased job responsibilities might have created more stress (Triplett, 1996). Nevertheless, it is perceived older officers typically have an enormous amount of peer support, which can potentially cushion against any causal effects of stress (Van Voorhis, 1991).

Insufficient Salary: Earlier research has suggested insufficient income could be a primary factor with job stress. Not surprisingly, correctional officers have often cited low pay as a source of their stress. Historically, of all the socio-economic variables, the relationship between income and job stress has been one of the most complicated.

One of the main reasons cited as to why correctional officers leave their jobs with the prison system was inadequate salary levels (Tolbert, Davenport, Friedman, Haghighi, and Schwank, 2000). In a Texas study of juvenile correctional authorities, 90% of juvenile probation

and correctional officers ranked higher salaries as their best recommendation for retaining current officers (Texas Juvenile Probation Commission, Research and Planning Division, 2000). The study exposed an antithesis relationship between turnover and salary. The study conducted in Texas revealed the greatest quantity of turnover involved those correctional officers and state employees who made \$25,000 or less. Those officers who were earning \$40,000 or more were less likely to quit their jobs (Texas Juvenile Probation Commission, Research and Planning Division, 2000).

A Gallup poll revealed the impact of income on job stress and satisfaction was mostly seen at the lower end of the income spectrum. The percentage of workers in households making over \$75,000 per year, who were less stressed and completely satisfied with their job, was 47%. Conversely, the figure went down to 42% for those people who earned less than \$30,000 per year (Gallup, 2008).

The average median annual starting salary for correctional officers in the three prisons for this study was \$23,314. Conversely, the median income for a household within the surrounding communities where these prisons were located was approximately \$38,733. This income discrepancy with correctional officer's salary, as compared with the local communities, could invariably culminate in additional stress for the officers.

Shift Work. The natural activity of humans is based on a 24-hour circadian cycle of day and night, work and rest. In corrections, almost 50% of workers have unconventional schedules because prisons must provide nutrition, health, security and welfare for inmates 24-hours per day (Bureau of Labor Statistics, 2002). Unfortunately, this type of coverage demands fixed, or rotating shifts, that inadvertently have the ability to impair a person's capability to function properly.

Previous research has suggested shift work could be one of the most common sources of stress for correctional officers because of the interruption of diurnal rhythms (Selye, 1976). The human brain regulates the cycle that controls over 100 physiological functions, to include body temperature, blood pressure, heart rate, etc.... These functions are tied to levels of alertness, mood, memory, and other psychological processes. Working nights has the propensity to alter these physiological functions.

Pollock (2005) conducted a research that investigated how shift work created physiological fatigue. Research has suggested one night of lost sleep could reduce cognitive performance by 25%, and a second night of lost sleep by nearly 40% (Krueger, 1989). This amount of fatigue has been estimated to be the equivalent of a .05% blood alcohol level. Furthermore, approximately half of shift workers on the first night spend roughly 24-hours awake, and this period could produce an impairment equivalent to a .10% blood alcohol level (Knauth, 1980).

Studies have strongly suggested shift work could have harmful effects on the body because of sleep deprivation. Scott (1994) outlined six warning signs of shift work: 1) impaired performance, 2) irritability, 3) gastrointestinal dysfunction, 4) depression or apathy, 5) sleepiness/sleeping at work, and, 6) sleep disruption during daytime sleep. Similar to Pollock's study, Scott (1994) felt females were particularly vulnerable to health troubles related to shift work, including cardiovascular morbidity and obstetric problems such as spontaneous abortion, babies with low birth weight, and pre-term births.

Many years of useful experience and studies have shown there are effective ways to reduce the adverse impact of shift work such as organizational practices of rotating correctional officer's shifts, rather than utilizing a model whereby officers are hired for a particular shift.

Research has shown rotating correctional officer shifts every four months culminated in reduced levels of stress and burnout (Neylan, 2002). Additionally, studies have shown correctional officers who chose to work a specific shift had less problems than those workers who were unwillingly assigned to a work specific shift (Barton, 1994).

Personality Type. One of the most overlooked, yet potentially critical components contributing to the causes of stress for correctional officers could be a person's demeanor, or personality type. The suggestion of personality types could be explained as the psychological categorization of people based on their personality. Among the many factors that contributed to an officer's stress level, the type of personality an officer had could have major ramifications on the amount of stress he or she experienced. The three distinct personalities looked at during this research were Type-A, Type-B and Type-C personalities.

Correctional officers who had Type-A personalities were extroverted, gained pleasure from human contact, and prospered working in the prison environments. Yet, those officers who had Type-A personalities had a tendency of placing too much responsibility on themselves. Some researchers perceive a Type-A personality as an inviolability within the corrections career field; however, sometimes when people who have Type-A personalities aren't able to meet the responsibilities placed upon themselves, they could experience a significant amount of stress.

Medical experts posit people who had Type-B personalities possessed a demeanor more inclined to handling stress. People with Type-B personalities appeared to have a calmer manner, and were more tolerant than those people who had Type-A personalities (Occupational Hazards, 1983). Type-B personalities were less susceptible to the rigors of stress. It was believed Type-B personalities were able to get along better with people because of their less aggressive nature.



Additionally, people with Type-B personalities worried less about day-by-day troubles and ostensibly minor tribulations.

People who had Type-C personalities were typically taciturn, perfectionists, and thoughtful. These officers often ignored and denied their feelings, while preserving a rational, no-nonsense, dispassionate outward behavior at all times. They struggled for correctness, and were very patient, too. Unfortunately, research has suggested those individuals were more vulnerable to stress and illness because of their inability to say no to people.

Now that we've discussed what the world's top researchers believed could contribute to the primary causes of stress among correctional officers, let's discuss some the primary repercussions from being overly stressed. We'll start by discussing unhealthy habits, then we'll cover health problems, both physical and psychological, associated with stress. Additionally, we will look at how each health issue can impact an officer's life.

## CHAPTER 2

### CONSEQUENCES FROM BEING OVERLY STRESSED

The first empirical study on the stress of correctional officers, conducted by Alvarez and Stanley in 1930, began as a study to check prison inmate's stress levels. One unexpected finding of their research was the mean blood pressure of the inmate population was less than the mean blood pressure of correctional officers (Gross, et al., 1994). The incongruity between blood pressure of correctional officers versus the inmate population suggested there were latent problems within the career field of corrections.

It has been pointed out from studies conducted within the United States that psychosomatic diseases are more common among prison officers than members of most other occupations, including police officers, or other comparable professions (Cheek and Miller, 1983). Studies about correctional officer's stress reported physical problems, and psychological ailments, associated with persistent levels of stress, including coronary heart disease, ulcers, hypertension, anxiety, and depression, occur at higher frequencies than other blue-collar occupations (Gross, et al., 1994). Additionally, several studies have suggested stress for correctional officers was equally high, or possibly higher than that for police officers. Of the several states surveyed during the 1970s, the rate of heart attacks among correctional officers was one of the highest among the diverse groups of state employees (Wynne, 1977).

Cheek and Miller (1983) conducted an investigative study that explored how stress affected approximately 143 correctional officers in New Jersey. During their research, Cheek and Miller obtained a massive amount of data on how stress from the correctional environment affected the officers. The research reported a 20.9% divorce rate, 36% had financial troubles,

30% reported health problems and the average life expectancy for correctional officers was 59 years of age.

Morgan (2009) revealed stress experienced by police and correctional officers paralleled one another; however, Morgan related correctional officers experienced a type of stressor that was specific to corrections. These special stressors were partially created because of the violent and disreputable inmates that correctional officers work with daily. When correctional officers become overly stressed, several physical problems are manifested, e.g. heart disease, poor blood circulation, high-blood pressure, aches and pains, etc....

Morgan's research related stress could lead to depression, eating disorders and diabetes. Research by Cheeks and Miller related records show time-off for disability, by the New York State Correctional Staff, was 300 percent higher than the state average. In fact, the problems of acute emotional stress concerning the heart, alcoholism, and allied emotional disorders, accounted for 60 percent of the disability leave (New York State, 1975).

When correctional officers experienced stress, they might be tempted to cope with it in a negative manner. Some ways officers dealt with stress in negative manners were by smoking, drinking, eating excessively and not exercising. These harmful manners of coping with stress could eventually lead to physical problems for correctional officers. There are numerous corollaries encountered when officers become overly stressed. Let's start by discussing three unhealthy habits that officers could develop in order to relax: smoking, drinking and overeating.

Smoking: Smoking is one of the most popular, yet harmful forms of relaxing used by correctional officers. Unfortunately, nicotine is one of the chemical compounds found in cigarettes. Nicotine is a stimulant and doesn't contribute to relaxing a person, from a physiological perspective. The chemical compounds found in cigarettes cause harmful effects on a person's lungs and heart.

Officers who suffer health problems from damage caused by smoking could prove to be a liability when attempting to respond to an emergency within the prison, or from excessive amounts of missed days from work.

Past studies have suggested tobacco has toxins that can contribute to an early death. Those officers who smoke or use other tobacco products are more likely to develop diseases and die earlier than those people who don't use tobacco (Mayo Clinic, 2009). If an officer smokes, he or she could worry about what it is doing to their health. Officers most likely are worried about how hard it might be to quit smoking because nicotine is highly addictive. Research has shown that most people aren't successful the first time they try to quit smoking. Typically, it could take more than one try.

Alcohol: Another form of relaxing that could be detrimental for correctional officers was alcohol consumption. If used in moderation, alcohol could prove beneficial for people. However, when officer's drink to reduce stress, they run the risk of over indulging. Additionally, when officers start drinking on a regular basis, the physical health problems could culminate in liver disease, cancer, heart disease, or dependence on alcohol (Mayo Clinic, 2009). Legal problems from alcohol related incidences could potentially cause unexpected problems for officers.

Overeating: Another unhealthy habit officers could develop, in order to deal with stress, is overeating. Overeating could have very debilitating consequences for officers. Obesity typically culminates from eating too much, especially when officers elect to live a sedentary lifestyle. Characteristically, when people turn to food to relieve stress, they eat comfort foods that are high in starches, e.g. fast food, breads, etc.... Excessive weight gain was usually a byproduct of an overindulgence of foods that were high in sugar and starches (Mayo Clinic, 2009). If overeating

were allowed to continue, unabated, for an extended period, it could create serious health problems for correctional officers.

Now that we've covered some potential negative habits correctional officers might develop in order to deal with stress, we will transition and talk about some of the possible consequences of developing these unhealthy habits. The problems associated can range from physical to psychological. We'll first look at the potential physical problems.

Hypertension: One common side effect of excessive weight gain was hypertension, a.k.a. high-blood-pressure. High-blood-pressure puts too much strain on a person's heart and blood vessels, and, if not treated, could cause a heart attack or brain hemorrhage (Matterson and Ivancevich, 1982). When correctional officers experience hypertension, they need to seek immediate assistance from a medical professional.

The physical problems associated with stress, e.g. heart attacks, obesity, and hypertension, are some of the most noticeable effects stress has on correctional officers. Cheek and Miller's research revealed correctional officer's average life expectancy was 59 years of age. Whereas, during Cheek and Miller's 1982 research, the average life expectancy of the average American was 75 years of age.

The psychological problems of stress can be just as debilitating as the physical symptoms. The most common psychological problems experienced by correctional officers, who suffer from stress, were anxiety, depression and anger (Afzalur and Psenicka, 1996). All these psychological problems could become unbearable if not properly addressed, creating indelible damage to correctional officer's ability to cope. Now that we covered some of the physical symptoms of stress, let's now discuss these potential psychological problems associated with stress, and how these issues could impact correctional officers.

Anxiety: Anxiety disorders affect approximately 40 million Americans, causing them to be overwhelmed with fearfulness and uncertainty (Kessler, 2005). Typically, the disorder gradually develops, and can begin at any point during an officer's life. In fact, some researchers have suggested genes could play a role in the disorder. Anxiety, caused from stress, typically could involve an upset stomach, the feeling of being afraid, or even becoming fearful of events in a person's daily life. Studies suggest correctional officers who suffer from anxiety could be propelled to avoid things they normally would have confronted.

Historically, anxiety has been treated with medication or cognitive behavior therapy. However, medications are not a cure, only a mechanism for keeping anxiety under control while the person undergoes psychotherapy. Treatment for anxiety depends on the person's specific problem, and preferences.

Medical professionals are the only people who can determine if an officer's symptoms are caused by an anxiety disorder, or some other problems. It is important officers are quickly diagnosed because if symptoms persist, an officer with agonizing pathos from anxiety could start missing days from work with unexplained illnesses. With proper treatment, most people who have received treatment from anxiety disorders can lead normal, healthy lives (Kessler, 2005).

Depression: Another effect of stress was depression, a psychological condition causing people to have low energy and feelings of extreme loneliness. People who experience depression typically avoid contact with others, and sleep more than normal. In some of the worst case scenarios, officers who become overwhelmed by depression could attempt suicide (Kessler, 2005). Officers who feel they are depressed should immediately schedule an appointment with their doctor to get this condition properly diagnosed.

If left untreated, depression could have a debilitating impact on an officer's personal and professional life. During a study by Lambert and Camp (2005), they reported correctional officers had more health problems, family issues, shorter life spans and died earlier than the average blue-collar worker. Their findings coincide with earlier research conducted by Cheek and Miller (1982).

Anger: Anger has often been confused with aggression. Aggression could be described as an intentional action to harm a person, animal, or to damage property. Whereas, anger could be explained as an emotion, not necessarily leading to an aggressive action (Beck and Fernandez, 1998). Therefore, from a theoretical perspective, it is possible for people to become angry without resorting to aggression.

Typically, anger becomes a problem when its felt too strongly, too often, or was expressed improperly (Beck and Fernandez, 1998). Additionally, anger could place an extreme physical strain on a person's body. In fact, research has suggested extended and recurrent episodes of anger could cause specific divisions of a person's nervous system to become highly activated (Van Balkom, 1994).

Officers who have experienced anger management problems have several avenues available to assist them with controlling it. One such treatment, cognitive behavior therapy (CBT) treatment, was discovered to be an effective, time-limited treatment for anger (Beck and Fernandez, 1998). The four most popular CBT treatments were 1) relaxation intervention, 2) cognitive intervention, 3) communication skills intervention, and 4) combined interventions (Deffenbacher, 1996). Additionally, another source of help for officers was group therapy. Group therapy taught officers how to 1) learn to manage anger, 2) stop violence or the threat of

violence, 3) develop self-control over thoughts and actions, and 4) receive support and feedback from others.

Consequently, when a person becomes angry, their blood pressure and heart rate could increase, and stay elevated for prolonged periods. This stress on the body could produce a multitude of health problems, e.g. hypertension, heart disease, diminished immune system efficiency, etc.... Thus, from a health standpoint, avoiding physical illness should be a motivational factor for officers to control their anger.

The three psychological problems discussed, anxiety, depression and anger, could be as debilitating as the physical problems created by stress (Afzalur and Psenicka, 1996). In addition to physical and psychological problems, there can be tertiary issues related to stress. Now that we covered some of the physical and psychological problems, let's discuss how stress can culminate in work and family related problems for correctional officers.

Family Problems. Studies of correctional officers have indicated an extremely high divorce rate—twice the national average (Cherniss, 1980). Approximately 20.33% (n = 40) of the officers who participated in this study indicated they had been divorced. The working environment for a large percentage of correctional officers, e.g. shift work, overtime, supervision, etc..., often created an intense discord that can disrupt the obligations of an officer's home life (Keinan and Pines, 2007).

Drained and exhausted, officers have nothing left to give their families emotionally, and lack energy for family involvement or participation (Cheeks and Miller, 1982). Typically, when people become overly stressed, they could become increasingly cold and emotionally withdrawn, and might not display any interest or affection towards their family. It is common for



correctional officers to become chronically irritable, often flaring up over minor problems, presumably after being pestered by inmates all day.

Barton (2004) conducted research on correctional officers who worked at an institution housing inmates serving high-end sentences for violence. During Barton's research, a large percentage of officers reported lack of time with their family. In addition, Barton's findings demonstrated, via surveys, how working weekends, holidays, and rotating shifts, adversely affected the amount of time an officer spent with his or her family, and meeting other social obligations.

Pollock (2005) conducted research on correctional officers, and looked at how these officers were impacted by stress. The research revealed how some correctional officers tightened discipline within their homes, and regularly spent less time with their family when they were off duty. The research demonstrated problems created at home, because of work related stress, could be a major influence on why correctional officers have a higher divorce rate than other blue-collar workers.

Burnout. Burnout has been identified as emotional or physical exhaustion that culminated in reduced job efficiency and over depersonalization (Perlman and Hartman, 1982). Some studies described job stress as the same as burnout; however, burnout's tentatively different (Carlson, 2003). Theoretically, burnout is a psychological strain present in the work environment, which generally results in apathy, alienation, dissatisfaction, and a lack of enthusiasm and concern for the customers served (Gerstein, Topp, and Correll, 1987). Burnout does not occur quickly, it is a long-term process, and is known as the disease of over-commitment or the super-achiever sickness (Schaufeli and Enzmann, 1998).

Burnout was normally recognized as the finished product of extended exposure to job stress (Cherniss, 1980). Previous research discovered job satisfaction to be negatively related to burnout among correctional officers (Lindquist and Whitehead, 1986). Based on accounts by Schaufeli and Enzmann (1998), burnout was first mentioned during a proposition for a new organizational structure to help counteract staff burnout among probation officers. It was most frequently defined as a subjective experience of physical, emotional, and mental exhaustion that stemmed from an ongoing involvement in emotionally strenuous situations.

The lingering exposure to the rigors of stress in occupations that are people centered can lead to burnout. Typically, when a correctional officer became too stressed, the officer was depicted as a person who had a weak constitution. Tracy (2003) explained the following:

Stress and burnout among correctional officers are associated with tensions inherent in correctional officer work. The organization norms that structure the correctional environment has as much to do with stress and burnout as do individual differences in officers. It is ineffective to treat correctional officer burnout solely as an individual pathology, best addressed by relaxation techniques and employee assistance programs. To address and mend problematic emotional construction among officers, correctional leaders must go beyond providing individual stress management techniques that reactively attend to the symptoms of burnout and opening-up windows for collective reflection and discussion regarding the organization itself (p. 31).

Maslach (1981) designed a research program to access the different aspects of the burnout syndrome. The three components of Maslach's burnout inventory consisted of depersonalization, emotional exhaustion, and feelings of reduced sense of accomplishment in dealing with people at work. Maslach's research exposed the disorder of burnout as a disturbing tiredness and pessimism that occurred frequently among individuals who did "people-work" of some type.

Maslach (1981) felt when an employee becomes frustrated with his job, and less concerned with his clients, he developed a more progressively negative work-related attitude and a sense of depersonalization. The second component of Maslach's burnout was a reduction in personal accomplishment, which culminated in a sense of job-related inadequacy and a feeling of failure (Maslach, 1981). The final component was when workers felt overextended by their work, that resulted in an emotional exhaustion (Maslach, 1981), and culminated in decreased job productivity (Perlman and Hartman, 1982).

Maslach (1981) defined job burnout as, "... a syndrome of emotional exhaustion and cynicism that occurred frequently among individuals who do some type of "people work." They discovered when stress overwhelmed an officer, it was dangerous and normally finished in burnout. A myriad of problems, both professionally and personally, could happen once an officer becomes burnout.

Research by Griffin, Hogan, and Lambert (2010) suggested job stress directly contributed to burnout. Dignam et al. (1986) found when correctional officers had negative interactions with inmates it was a significant predictor of burnout; however, when these interactions were positive in nature, it was not significantly related to burnout. Correctional officers who reported increased levels of job stress also experienced greater amounts of emotional exhaustion, and

depersonalization. In addition, stress, created by lack of job satisfaction, had a direct influence on an officer's burnout.

Although the term burnout seems to imply it is a sudden and irreversible phenomenon, researchers have revealed the onset of this syndrome was gradual, and the effects could be reversed (Welch et al., 1982). Based on the impressionistic literature on this subject, burnout could occur after several months on the job, or a number of years; however, there was not a set formula to determine when it occurred. When pressure, conflict, and demands outweigh emotional rewards and support, a person could become susceptible to suffering burnout (Pines and Aronson, 1988).

Whitehead and Linguist believed stress and burnout were not synonymous; rather, chronic, and intense stress could lead to burnout, especially if the correctional officer was helpless to change the situation and utilized an intrapsychic form of coping (Cherniss, 1980). It was believed burnout could not be reduced too significantly without consequential involvement and allegiance from administrators to evaluate and recognize the possible effects of a stressful work environment.

The correctional officer and the institution benefit when the potential for burnout was reduced. Burnout, because of stress, was viewed as an energetic difference between the correctional officer and his physical or social environment. The interactive scrutiny of stress holds that conditions are not intrinsically stressful. The combination of the specific situation and an individual, with an unambiguous personality, behavioral pattern, and life-situation circumstances, results in a stress producing imbalance, (McMichael, 1978).

Job Turnover. Research has shown turnover characteristically takes place early in the correctional officer's career. It has been reported that approximately 71.3% of those correctional

officers who leave corrections will quit during the first two years of employment (McShane, 1991). Some of the primary reasons given as to why officers leave the organization, stress and family considerations, while in the top ten, were not offered as the primary reasons. Research has shown financial matters, retirement, work hours, overtime, shift work, and a paucity of career opportunities, played a larger part with correctional officer's final decision to leave.

Correctional agencies spend a substantial amount of money, from already strained budgets, on the training of its officers. Unfortunately, the turnover rate for correctional officers typically rates much higher than other blue-collar jobs. In fact, some states report turnover rates for officers with less than 24 months experience as high as 45%. When officers quit, it means the money invested in hiring, and training does not produce the required dividends. Additionally, an increased amount of correctional officer turnover can feed off itself to aggravate problems, damage organizational efficiency, and encourage increased turnover from other officers.

McShane (1991) discussed several reasons for the high turnover rate for correctional officers. During his research, many officers used economical reasons, such as low pay, lack of advancement opportunities, and better job prospects. However, some cited boredom, rotating shift-work, and stress from physical dangers of the job.

Lambert (2006) reported three individual factors, gender, education, and tenure, and two work environment factors, organizational commitment, and job satisfaction, were important predictors of turnover intention. Lambert further related job satisfaction had the strongest effect on whether an officer quit. In a subsequent study by Lambert and Hogan (2009), it was revealed the best predictors of turnover intent was directly related to an officer's age, job satisfaction, and organizational commitment.

The highest turnover rate was experienced by correctional officers with less than 24 months on the job. Graham (2007) revealed during his research in 2004, the turnover rate for correctional officers working for the Georgia Department of Corrections was one of the highest in the nation at approximately 20.45%. Moreover, the turnover rates for correctional officers in some areas of the nation were reported to be in excess of 45%.

McShane (1991) related turnover was most expensive when an officer left within the first 24 months of being on the job. McShane estimated the approximate cost of replacing a trained correctional officer could range between \$10,000 to \$20,000 for an institution. The research by McShane suggested when turnover was high, despite limited outside alternatives, the climate of the job or the nature of the employee was suspect. In addition, McShane referenced one study, from 1988, that suggested administrative structures and policies affected employee job satisfaction more than the nature of the job itself.

Absenteeism. An officer's desire to stay away from work, or work avoidance, can be gauged through absenteeism. Sheridan (1985) related absenteeism was a form of "employee withdrawal." Absenteeism, like job turnover, was detrimental to prisons, and another form of harmful employee conduct (Lambert, 2005). It was believed more than half of all absences in the workplace are stress-related, amounting to more than one million stress-induced employee absences a day in the workplace (Dillon, 1999).

Sheridan (1985) succinctly defined withdrawal "...a reduction in the employee's socio-psychological attraction to or interest in the work organization." Slate, Vogel, and Johnson (2001) attributed much of the high absenteeism and job turnover among correctional officers largely because of high stress levels. However, they further suggested improving certain aspects

of their environment, such as administrative feedback to officers or authorizing decisions at line-level, could potentially help relieve some of the stress.

Absenteeism happens when correctional officers, who were scheduled for work, do not attend, in terms of hours or days, rather than minutes. Prisons have numerous posts that have to be manned at all times; therefore, when an officer calls out, a domino effect occurs. Officer's absenteeism has direct and indirect cost for prisons. The direct cost includes sick pay, overtime pay to fill the position, and overstaffing. Conversely, the indirect cost includes disruptions, emasculated productivity, loss of expertise and experience, and management's time to revise work assignments (Lambert, Edwards, Camp, and Saylor, 2005).

Lambert (2001) looked into the problem of correctional officer absenteeism. He conducted one of the first researches that looked into the problem experienced by prisons when correctional officers were absent from work. Lambert observed exactly how work related stress, a poor working environment, age, gender and family responsibilities impacted correctional officer absenteeism. Furthermore, research conducted by Venne (1997) examined the impact of twelve-hour shifts on Canadian correctional officers, and concluded shift work precipitated absenteeism.

Gross (1994) discovered among officers in Michigan, male correctional officers used less sick leave than female officers. Leigh (1991) revealed female correctional officers, who had children under five years of age, had higher absenteeism rates. Conversely, research by VandenHeuvel and Wooden (1995) revealed females were more likely to be absent than males, the research found neither marital status or number of dependent children had any significant effect on unscheduled and unanticipated absenteeism. Additionally, a study by Lambert (2005)

suggested rotating shifts negatively affected female absenteeism rates because of childcare problems.

Lambert and Camp (2005) revealed how prominent qualifications of absenteeism among correctional officers correlated to a correctional officer's job satisfaction and stress levels.

Lambert and Camp's research suggest administrators should focus their efforts on reducing stress by trying to improve the working environment for correctional officers. Lambert discussed problems other researchers might later encounter while researching the prevalence of absenteeism involving correctional officers.

Lambert foresaw the main problem with obtaining data being privacy issues, because agencies do not disclose information on an employee's absenteeism. Cheek and Miller (1983) established correctional officers in New York had a 300% higher absenteeism rate than the average rate of all other professions within the state. This extreme absenteeism rate for correctional officers could be directly attributed to the extra amount of stress experienced by officers.

There are many programs available for prison administrators to enact in order to assist correctional officers. Administrative procedures could positively, or unconstructively, influence problems concomitant to correctional officer's job stress. Original policies and programs cannot produce their planned effects if these policies and programs exist within an unsupportive culture (Friedman and Galinsky, 1992). The correct identification and implementation of policies, with the capability to promote a positive work outcome, affords administrators the ability to positively influence the outcome of stress and burnout. As the old adage goes, an ounce of prevention is worth a pound of cure.



There are many processes available to prison administrators to assist correctional officers with coping with any stress they might suffer. One of the initial steps would be to hire the correct person for the job. Afterwards, there are several steps administrations can take to help officers properly transition into the life of a correctional officer.

## CHAPTER 3

### INSTITUTIONAL EFFORTS TO AMELIORATE OFFICER'S STRESS

Screening Process: Previous studies suggest that simply because an individual met the criteria for correctional officer duties didn't necessarily equate to the individual being well suited for the job. Administrative staff could potentially curtail the high turnover rates of its officers by implementing a more thorough, rigid screening process. The screening process should identify any psychological or behavior problems that could possibly agitate a person's stress level, thereby, culminating in either voluntary, or non-voluntary termination of employment.

Within the screening process, correctional administrators could utilize their own personal work history in corrections, both at their present institution and at institutions where they were previously employed (Lambert and Hogan, 2006). Additionally, administrative staff could vicariously derive data from staff member's socialization within the correctional officer subculture. In particular, administrative staff could examine their relations with other correctional staff who had left their agencies or had planned to leave.

Some of the explicit factors examined should consist of perceptions of why particular officers left the prison, as well as perceptions of what those officers accomplished by leaving, e.g. obtaining better paying job, more desirable hours, etc.... Simply asking potential job candidates poignant questions about whether they foresee themselves seeking employment elsewhere within the next couple of years, might help eliminate specific candidates who probably wouldn't be suitable as a correctional officer.

Performance Feedback: Better, clearer, and more frequent job feedback could reduce the level of stress experienced by staff at work (Lambert and Hogan, 2007). Correctional officers need guidance on how they're doing their jobs. To be effective, there must be two-way communication with correctional staff on how they are performing their jobs (Price and Mueller, 1986).

It has been widely accepted that job performance feedback would lead to lower job stress for correctional officers. When performance feedback has been provided in a timely manner, it afforded officers an opportunity to understand how to properly complete their tasks within specification limits of the job (Cammann, Fichman, Jenkins, and Klesh, 1983). Additionally, performance feedback affords officers and opportunity to improve prior to an official evaluation be written.

When correctional officers do their jobs without timely and significant feedback, it makes their job more demanding and exasperating (Lambert and Hogan, 2007). Without good, honest feedback, officers can't correctly gauge their supervisor's expectations, or how they're performing their jobs. The prison's administrations could lower potential stress by mandating its supervisors conduct regular performance feedback. In addition to giving job performance feedback, the supervisors should let their officers know their expectations, along with the expectations of the prison's administrators.

Employee Assistance Program: Delprino (2002) conducted research to distinguish how correctional institutions supported outside programs that provided assistance to correctional officers and their families to help them cope with stress. Delprino explored how support services were put into practice to help officers deal with occupational stress. The research suggested the

most prevalent program offered to correctional officers overly stressed was the Employee Assistance Program (EAP).

Historically, prisons typically try to assist its employees through external EAPs. EAPs are viewed as cost efficient means to offer help to their correctional officers because of the assistance EAPs provided in terms of better attendance, reduced utilization of medical plans, and overall better work efficiency (Klarreich, Diguseppe, and Dimattia, 1987). Additionally, these services had the capability to provide counseling for workplace assaults, marriage counseling, and exposure to potentially dangerous blood borne pathogens.

Input into decision-making: The perception of a lack of opportunity, with input into decision-making, has the potential to create stress and a form of devaluation amongst officers at correctional institutions. If prisons want to create a positive work environment, based on trust, collaborative teamwork, and creative problem solving, its leadership should understand, invest and be responsive to the needs of its officers. The return on such nominal investments could come in the form of greater levels of officer motivation, resourcefulness, and dedication that would culminate in smoother running institutions.

Facilitating correction officers involvement with input into decision-making enhances responsibility, increases authority, and makes the job more challenging and interesting for officers (Beck, 1993). When administrators empowered correctional officers, it demonstrated that it believed its officers had the ability to recognize and solve problems. Consequently, the best way to accomplish this act was through meeting with officers in order to hear their inputs, and following up on input and improvement recommendations. Prisons that sought to take full advantage of its officer's talents and abilities made the best use of everybody's time.

Wellness Programs: Workplace wellness programs are institutional-sponsored initiatives directed at improving the health and welfare of all its officers. The workplace is an excellent setting for introducing programs that can reach large segments of the population that normally would not be exposed to and engaged in organized health improvement efforts (Wilson, Holman and Hammock, 1996). In 2007, the Centers for Disease Control (CDC) and Prevention concluded that well-designed, evidence-based wellness programs built on behavioral theory can achieve long-term health and productivity improvements in employees (CDC, 2007).

McShane (1991) believed prison administrators must take preventive measures to help reduce the amount of stress experienced by its officers; one way was a work-site wellness program. These wellness programs could help reduce absenteeism, grievances, sickness and accident costs, and serve as a preventive legal strategy against employee lawsuits for stress-related health problems. McShane believed communication, dissemination, and application of effective wellness programs should occur for these programs to be considered a standard benefit versus an optional one. Incentives for physical conditioning could potentially provide an opportunity for administrators to promote a healthier workforce.

Expand Working Environment: The research findings of Whitehead and Lindquist (1986) suggested administrative practices should look for ways to reduce stress and enhance job satisfaction to benefit the employee and manager who seek to reduce job burnout. Their research pointed out prison administrators could boost job satisfaction by expanding the variety, barriers, and the challenges of the job, while offering educational incentives. The research found that correctional administrators should mull over varying working environments within prisons by expanding the job of the correctional officer and by developing organizational designs to deal with job and worker related problems.

While programs offered by administrators could be of significant value, better-quality resources appear to go towards working with inmate's educational and family needs, versus fewer resources or programs being allocated towards the welfare of correctional officers and their families. Normally, programs and services provided to correctional officers, by prison administrators, have very little transparency when it comes to identifying the effectiveness and utilization of these programs. Additionally, the programs typically offered very little consideration into tackling an officer's family concerns.

Typically, prison administrators do not fully address the impact the career of a correctional officer could have on a person's family. In addition, penitentiaries have not always fully recognized the valuable resource families could be with helping to minimize the potential negative consequences a career as a correctional officer could have on the interests of the officer, family and the organization. For these reasons, it is imperative for correctional officers not to completely rely on prison administrators to reduce the consequences of stress.

Now, we will look at some of the proactive approaches correctional officers could take to reduce their own stress levels. Typically, a person utilizes coping strategies to reduce stress and avoid burnout. Effective coping strategies are invaluable resources when examining the role these assets play in a person's physical and psychological well-being when confronted with stress (Sears, Urizar and Evans, 2000).

## CHAPTER 4

### CORRECTIONAL OFFICER STRATEGIES TO REDUCE STRESS

While universities and private researchers have steadfastly increased the number of researches involving correctional officer's primary stressors, information about how to properly cope with stressful working environments have seriously lagged behind (Beehr et al., 1995). It is believed many problems associated with stress can be corrected if officers knew how to positively deal with stress. The cognitive assessment and coping process used by correctional officers normally determined whether psychological stress reactions developed.

If an officer had the capacity to define their stressful experiences through their assessment and coping reactions, they are considered both the recipient and perpetrator of their experienced stress (Lazarus and Folkman, 1984). Correctional officers have many avenues to help them positively deal with stress. Some examples of avenues available are seeking support, using relaxation methods, lifestyle assessments, planning, religion, cognitive reformation, time management, and healthy lifestyle choices.

Seek Support. Research conducted by Cheeseman (2008) revealed some correctional agencies utilized peer support teams to aid officers with coping with on-the-job-stress. Cheeseman related peer support teams and support programs were important. However, there simply could be a need for correctional officers to feel fellow officers have empathy for them, even when situations appeared ordinary or mundane.

Social support can refer to the provision of information or emotional assistance at work or in one's personal life. Support received from both settings has been cited as attenuating burnout (Cherniss, 1980). Officers might consider fellow officers to be a source of support, and

the abstract nature of two scale items could be interpreted as referring to support from fellow officers or superiors within the prison. Previous research has shown support mitigated role conflict, job stress, job dissatisfaction, and burnout.

Relaxation Techniques: Normally, relaxation techniques involved meditation, deep breathing, yoga and simple focusing. Each technique has proven benefits to help reduce physical and mental stress. These procedures could be practiced at home, or at work, without interfering with an officer's duties (Moracco, 1985).

Breath is the most precious thing in our lives, and something we cannot survive without (Sarma, 1996). One of the most accepted relaxation techniques at reducing stress was breathing. When officers become stressed their breathing becomes shallower, because they are typically only taking in small amounts of air into their lungs.

When sufficient amounts of oxygen aren't provided to the brain cells, it could lead to hypoxia and other serious ailments. When officers learn how to breathe correctly, via inhaling deeply several times to fill the lungs, which causes the abdomen to expand outward, then controlling the exhale, they can reduce the amount of stress being endured during that particular moment. Learning to properly breathe can be as important as regular exercise.

Lifestyle Assessment: Correctional officers should constantly assess and re-examine their goals or other parts of their lives that aide them with coping techniques involving stress. Moracco (1985) believed the best way for an officer to keep focused was to make a list things they sought to accomplish during their career as a correctional officer and in their personal lives. Moracco felt officers should make a list of three things they disliked about their jobs. Then, make an enumeration of three things they liked and disliked about themselves (Moracco, 1985). Having



these items written down on paper could help correctional officers clearly determine if the stress being experienced, in order to accomplish career goals, was worth the stress.

Advanced Planning: Correctional officers should periodically conduct self-assessments to determine current skills, interests, values and career objectives. By identifying short and long-range plans, and objectives to achieve these plans, officers could help mitigate potential stressful situations. Typically, short-term plans should be accomplished within 1-2 years, and long-term plans should be completed within 3-5 years (Department of Defense Booklet, 2003). Officers should prioritize the knowledge, skills, and abilities they need to improve on. Additionally, officers should consult with their supervisors to help determine the actions necessary to overcome any barriers.

Officers should conduct a job analysis to help determine exactly what career-related tasks are necessary to become successful in their chosen profession. Correctional officers need to plan based on what they and their supervisor determine are areas pivotal for career enhancement. The prison, a dynamically changing environment, makes it imperative that officers be aware that the requirements for their jobs could change, thus making it critical to plan-ahead.

When officers anticipate an event in their lives that could be stressful, they should plan to ensure they could properly deal with these situations. By properly planning for potential stressful situations, an officer has in essence taken control of his life. Through advanced planning, an officer can learn to use the proper strategies to cope with stress upon recognition of stressful feelings.

Religion: Everybody faces losses, adversity, and disappointments throughout their lives, and research and clinical findings suggest people are better able to get through these difficult times if they had faith and hope (Asher, 2001). Religion could afford officers a spiritual awakening to

help them cope with the potentially acrimonious, negative environment of the prison. In fact, religion could be understood sociologically, as a formal set of beliefs, doctrines, laws, and practices that are linked to an explanation of the creation and governance of the universe.

The ability to experience faith and hope are very large parts of fulfillment and contentment at any specific moment during a person's life. Religious activities afford correctional officers a way to cope with stress. Additionally, it affords correctional officers a venue to meet people who aren't involved with corrections, while providing something positive in their lives.

Cognitive Restructuring: When negative attitudes towards life are developed, it could place an officer on the precipice of changing his or her thought patterns. Research has suggested officers should not think in terms of failure, but instead should visualize positive ways to cope with disappointment. Dewe (2000) felt officers with an internal locus of control were less likely to doubt the efficacy of their attempted efforts to tackle problems, versus those officers who had an external locus of control. This opinion was exemplified by quantitative research conducted by Botha and Pienaar (2006), while studying South African prison officers.

The work locus of control scale was used to evaluate participants' locus of control within their own work environments. The results signified an officer with a strong inner locus of control could endure less negative impacts, and less worry from occupational stress. The belief corresponded to Owen's (2006) findings among prison supervisors, which revealed maintaining an internal locus of control was an important factor in reduction of occupational stress.

Time Management: Research suggested one very effective way for correctional officers to reduce stress was correctly managing their time. Numerous studies have perceived the best way to accomplish time management skills was for officers to set priorities to manage time more

efficiently. Security always took priority, while less critical jobs, not involving security, were completed on an as need basis.

Research has suggested officers must identify those tasks that are necessary, and immediate. Those tasks not considered to need immediate attention should be delegated to subordinates (Mayo Clinic, 2009). The most important thing for officers to remember was to take time to breathe, and understand what tasks were most important.

Live Healthy: Many studies have suggested the most significant way to combat stress was living a healthy lifestyle. A healthy lifestyle begins with eating a sensible diet and exercising regularly. People should avoid foods with too much saturated fat and cholesterol. Moreover, adults should exercise at least three times per week, for a minimum of one hour during each session. Exercise could increase a person's strength, endurance, while replacing body fat with muscle, while simultaneously lowering cholesterol levels.

Experts believe regular aerobic exercise can reduce the effects stress has on a person's body, and help them live longer, healthier lives. Aerobics reduces health risks, keeps excess weight off, strengthens a person's heart, while boosting energy (Mayo Clinic, 2009). It is believed healthy adults should try for 150 minutes of moderate aerobic activity, or 75 minutes of vigorous aerobic activity per week. Some examples of aerobic exercise given by the Mayo Clinic were swimming, bicycling, jogging, and jumping rope.

## CHAPTER 5

### RESEARCH PROCESS

#### BACKGROUND

The primary causes of stress for correctional officers could be attributed to a myriad of factors, to include problems with administration, inadequate pay, the prison's security-level, inmates, shift work, and an overall lack of job satisfaction. Those correctional officers who become overly stressed could potentially be more susceptible to burnout, and experience health and family related problems.

#### DATA COLLECTION STEPS

In order for correctional officers to have an opportunity to complete these surveys, a proposal was sent to wardens of three prisons in a southern state. These prisons were selected based on their security-level: minimum, medium, and maximum. After permission was authorized, a data set consisting of a stratified random pool of officers from each prison was utilized. All correctional officers who weren't on leave or regularly scheduled days off had an opportunity to participate in this research.

Approximately 346 survey packages, containing four questionnaires and a cover letter emphasizing anonymity of all participants, were distributed. The correctional officers were provided with self-addressed, stamped envelopes to return the questionnaires. The envelopes were addressed to the home address of the principle investigator in order to assure the confidentiality of the respondents. The data did not have any identifying characteristics or coded identifiers that would allow researchers, or others, to identify the survey respondents.

## DESIGN

The design for this research was a combination of surveys and content analysis. In an effort to better understand out how stress affects the correctional officer, this research used both qualitative and quantitative data. The research measured, via deductive theory, how working within the prison system could impact a correctional officer's job performance, health and family life.

## METHODOLOGY

Seminal theories of past studies have shown an officer's gender, age, and personality type, coupled with the security-level of the prison, along with problems with supervisors, and inadequate income could cause an officer to experience different levels of stress while working inside a prison. Therefore, for the purposes of this study, 13 different independent demographic variables were measured against the dependent variable of stress. This research gathered data through surveys distributed to correctional officers who worked at three prisons, located in a southern state. These three prisons housed inmates ranging from minimum custody, to those serving Life, Without the Possibility of Parole. This study gauged for statistical importance to see whether specific stress signs from questionnaire answers applied to the larger quantity of officers at these three penitentiaries.

There were 197 packages returned, or 56% (N = 197), by those officers, both male and female, who decided to participate in this study. Social science believes a 50% return rate is required for validity (Lee, 2008). Therefore, the 56% response rate in the sample of correctional officers should be considered as a midpoint between a good and very good rating.

The only prerequisite involving the sample selection was that the correctional officers had direct contact with inmates. There were no considerations made to stratify for race, gender, shift, years of service, or any other demographic variables. However, the questionnaires

measured several demographic variables, including gender, age, marital status, number of children, race, education, relationship with supervisor, self-perceived personality type, years of service, view of the primary purpose of prisons, work shift, prison's security level, hours spent per week in contact with inmates, and information regarding missed time at work over the past three months.

### *LOCATION*

The three prisons that authorized its officers to participate in this research were located in a southern state. The institutions were selected based on their security levels, which were classified as: minimum, medium and maximum-security-level penitentiaries. The population of all three prisons combined was approximately 2,064 inmates. Of those inmates, 42 percent were Caucasians, 46 percent were African-Americans and 12 percent were made up of other races.

### *MEASURES*

The dependent variable in this research was stress, which was measured by a 15-question Occupational Research Questionnaire (ORQ). Each question asked officers to rate their stress levels with respect to an aspect of their job on a scale from 1 to 7, where 1 meant "No Stress At All", 7 meant "A Lot of Stress", and in the middle of the scale, 4 meant "Moderate Stress".

The Carver COPE was used to assess each officer's coping style. The Carver COPE contained 16 items in which participants were asked to specify how often they usually employ a specific style of dealing with stress. The correctional officers who participated responded by using a 5-point ordinal scale arrangement with the following choices: "never", "rarely", "sometimes", "often", or "always" (rated 1 to 5, respectively). Those items selected considered a correctional officer's feelings of job-related tension and anxiety; ostensible measures of job stress are frequently used in correctional staff studies (Cullen, 1985).

In order to evaluate the degree of burnout, officers were asked to complete the 22-item questionnaire of the Maslach Burnout Inventory (MBI). The MBI rated officers on three measures: Emotional Exhaustion, Personal Accomplishment, and Depersonalization. Each measure asked officers to rate their agreement with several statements on a scale of 1 to 5, where 1 indicates strong agreement and 5 indicates strong disagreement. The Emotional Exhaustion scale is based on 9 questions (potential Emotional Exhaustion scores range from 9 to 45); the Personal Accomplishment scale is based on 8 questions (potential Personal Accomplishment scores range from 8 to 40); and the Depersonalization scale is based on 5 questions (potential Depersonalization scores range from 5 to 25).

#### DATA ENTRY AND STORAGE

There were no identification data collected on correctional officers. All data from returned surveys were stored inside a locked room. In addition, all data were secured in a computer database that was password protected. Once it is determined questionnaires are no longer needed for analysis, all the data will be destroyed.

#### EXPECTED RESULTS

The measurable potential was stress, which, coupled with a long-term experience of working inside a prison, has the capability to impact the personal and professional life of officers. Occupation-related stress has the ability to impact difficult matters in the professional lives, as well as their communal social wellbeing, and personal relationships at home. This research was an effort to help clarify the effects that come from working in a high-stress environment.

All correctional institutions have the tools to assist officers to better perform their duties and maintain healthier, more productive lifestyles. The information from this research could bring additional awareness to the need to create an enhanced training base, along with additional

training resources for correctional officers. Moreover, the information collected from this project could potentially assist prison administrators with identifying and mitigating the amount of stress its officers sustain while working within the prison system.

#### DATA DESCRIPTION

Tables 1 and 2, which follow, provide basic descriptive statistics for the measures used in this study. The median and mean were comparable to one another for each variable, which indicates the variables were roughly symmetrically distributed. One could view the "typical" respondent as a 41 year-old African-American male who has worked in the prison system for 9.2 years.

Tables 3, 4, and 5, which also follow, summarize the responses to each part of the survey. Responses to each of the 15 ORQ questions are summarized in Table 3; responses to each of the 15 COPE questions are summarized in Table 4; and responses to each of the three sections of the MBI are summarized in Table 5.

Table 3 demonstrates that among individuals in the sample, the highest stressors appear to be insufficient salary (mean score of 5.61) and overtime demands (mean score of 5.02); it also demonstrates that the least stressful areas among these individuals are shift work (mean score of 3.35), immediate supervisor (mean score of 3.58) and interaction with inmates (mean score of 3.59), though even these means come close to a stress level of "moderate" (4 on the Likert-scale answers).

Table 4 demonstrates that on average, these individuals in the sample indicate they most often seek spiritual help as a method of dealing with stress (mean score of 4.13) and indicate they least often seek therapy (mean score of 1.61) or use alcohol, smoke, or use other drugs (mean score of 1.89).



It should be stated these are self-reported results, and so could be biased according to what individuals are willing to report. Also it should be recognized these statistics and the statements related to them in the previous two paragraphs refer only to individuals in the sample; no statistical tests have been performed to determine whether it is likely these differences in stressors and coping strategies extend to the population of correctional officers from this sample.

Table 1. Demographic Characteristics of the Sample (Categorical)

	Number	Percent
<b>Race/Ethnicity</b>		
Black	139	70.56
Hispanic	4	2.03
White	53	26.90
Asian	1	0.51
<b>Gender</b>		
Male	132	67.01
Female	65	32.99
<b>Current Shift</b>		
First	65	32.99
Second	80	40.61
Third	52	26.40
<b>Marital Status</b>		
Married	100	50.76
Divorced	40	20.30
Widowed	2	1.02
Single	55	27.97
<b>Education Level</b>		
High School	113	57.36
Associate's Degree	53	26.90
Bachelor's Degree	29	14.72
Master's Degree	2	1.02
<b>Personality Type</b>		
A	101	51.27
B	93	47.21
C	3	1.52
<b>Prison Security Level</b>		
Minimum	36	18.27
Medium	99	50.25
Maximum	62	31.47
<b>Prison Purpose</b>		
Rehabilitation	75	38.86
Incapacitation	33	17.10
Punishment	57	29.53
Deterrence	28	14.51
<b>Supervisor Relationship</b>		
Positive	161	81.73
Negative	36	18.27

N = 197

Table 2. Demographic Characteristics of the Sample (Continuous)

<b>Variable</b>	<b>Minimum</b>	<b>Median</b>	<b>Maximum</b>	<b>Mean</b>	<b>StandardDev</b>
<b>Age</b>	19	43	64	40.97	11.92
<b>Number of Children</b>	0	2	5	1.85	1.37
<b>Years Worked in Prison</b>	0.16	7.75	32.83	9.24	7.31
<b>Hours Spent with Inmates/Week</b>	4	40	60	39.20	13.12

Table 3. Summary of ORQ Scores

<b>Stressor</b>	<b>Minimum</b>	<b>Median</b>	<b>Maximum</b>	<b>Mean</b>	<b>StandardDev</b>
<b>Shift Work</b>	1	3	7	3.35	1.95
<b>Overtime Demands</b>	1	5	7	5.02	2.01
<b>Risk of Being Injured</b>	1	4	7	4.30	1.80
<b>Not Enough Time with Family</b>	1	5	7	4.77	1.98
<b>Work Overload and Work Underload</b>	1	4	7	4.38	1.93
<b>Role Conflict</b>	1	4	7	3.80	1.77
<b>Lack of Administrative Support</b>	1	5	7	4.82	1.95
<b>Lack of Proper Training</b>	1	4	7	3.81	1.85
<b>Lack of participation in decision making</b>	1	4	7	4.14	1.95
<b>Lack of Job Satisfaction</b>	1	4	7	4.08	1.94
<b>Interaction with inmates</b>	1	4	7	3.59	1.68
<b>Crisis Situations</b>	1	4	7	3.87	1.79
<b>Insufficient Salary</b>	1	7	7	5.61	1.86
<b>Role Ambiguity</b>	1	4	7	3.86	1.79
<b>Immediate Supervisor</b>	1	4	7	3.58	1.91

Table 4. Summary of Responses to COPE

<b>Coping Strategy</b>	<b>Minimum</b>	<b>Median</b>	<b>Maximum</b>	<b>Mean</b>	<b>StandardDev</b>
<b>Get Rid of the Problem</b>	1	3	5	3.47	1.10
<b>Let Out My Emotions</b>	1	3	5	2.65	0.99
<b>Seek Support from Family</b>	1	3	5	3.20	1.25
<b>Seek Advice about what to do</b>	1	3	5	3.17	1.10
<b>Seek Spiritual Help</b>	1	5	5	4.13	1.30
<b>Wait, Don't Overreact</b>	1	4	5	3.58	1.01
<b>Typically become Emotionally Distressed</b>	1	2	5	2.40	1.04
<b>Exercise</b>	1	3	5	3.52	1.07
<b>Use Alcohol, Smoke or use other Drugs</b>	1	1	5	1.89	1.24
<b>Try to see it in a different light, make it positive</b>	1	3	5	3.42	0.99
<b>Criticize Myself</b>	1	2	5	2.47	1.04
<b>Come up with Strategy to Improve Situation</b>	1	4	5	3.78	0.96
<b>Seek Therapy</b>	1	1	5	1.61	1.07
<b>Go to movies, watch television, read, sleep, etc.</b>	1	3	5	3.38	1.14
<b>Learn to live with it</b>	1	3	5	3.28	1.05
<b>Meditate</b>	1	3	5	2.48	1.34

Table 5. Summary of MBI Scores

<b>Inventory</b>	<b>Minimum</b>	<b>Median</b>	<b>Maximum</b>	<b>Mean</b>	<b>StandardDev</b>
<b>Emotional Exhaustion</b>	9	26	45	26.89	8.22
<b>Personal Accomplishment</b>	9	21	40	21.63	5.04
<b>Depersonalization</b>	5	17	25	16.34	4.15

## ANALYSIS

### *Demographic Relationships to Stress through Occupational Resource Questionnaire (ORQ)*

To determine whether the demographic variables demonstrate significant relationships with ORQ stress level scores, Analyses of Variance (ANOVA, for categorical demographic variables) and linear regressions (for continuous demographic variables) were conducted. The responses were the 15 individual Likert-scale questions gauging stress in various areas. *Overall stress* is determined by adding together the 15 individual Likert-scale scores from the Occupational Resource Questionnaire, for a total stress scale with a potential range from 15 to 105.

First, the differences in vulnerability to stress among correctional officers of different races were analyzed with ANOVA. The majority of correctional officers in the study were African-American, while only 5 individuals were of a descent other than African-American or Caucasian. For the purposes of this study, those five individuals were combined with the Caucasian correctional officers to form an "Other" group. African-Americans were found to be significantly more vulnerable to overall stress ( $P\text{-Value} < 0.0001$ ) than those in the other race group. The average African-American answer to any of the Likert-scale questions was  $66.27/15 = 4.42$ , and the average other-race answer to any of the Likert-scale questions was  $55.07/15 = 3.67$  (recall that 1 indicates "No Stress at All" and 7 indicates "A Lot of Stress", and an answer near 4 indicates "Moderate Stress"). Table 6 presents the average scores on each of the questions of the ORQ according to race; P-values less than 0.05 indicate where the scores are significantly different, and these stressors are highlighted in yellow.

Table 6 demonstrates that African-Americans rate their stress significantly higher than others in the areas of overtime demands, risk of being injured, not enough time with family, work overload and underload, lack of participation in decision making, lack of job satisfaction,

crisis situation, and insufficient salary; in contrast, African-Americans rate their stress significantly lower than others in the area of role ambiguity.

Table 6. Comparison of Stress by Race

<b>Current Stressor</b>	<b>African-American Mean Score</b>	<b>Other Races Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	66.27	55.07	0.0002
<b>Shift Work</b>	3.51	3.51	0.0743
<b>Overtime Demands</b>	5.42	2.97	0.0000
<b>Risk of Being Injured</b>	4.57	4.03	0.0013
<b>Not Enough Time with Family</b>	5.11	3.67	0.0001
<b>Work Overload and Work Underload</b>	4.56	3.95	0.0414
<b>Role Conflict</b>	3.92	3.95	0.1240
<b>Lack of Administrative Support</b>	4.99	3.49	0.0505
<b>Lack of Proper Training</b>	3.94	4.40	0.1256
<b>Lack of participation in decision making</b>	4.31	3.50	0.0601
<b>Lack of Job Satisfaction</b>	4.29	3.74	0.0204
<b>Interaction with inmates</b>	3.70	3.59	0.1355
<b>Crisis Situations</b>	4.05	3.31	0.0268
<b>Insufficient Salary</b>	6.11	3.43	0.0000
<b>Role Ambiguity</b>	4.09	4.41	0.0052
<b>Immediate Supervisor</b>	3.70	3.31	0.1941

Next, the differences in vulnerability to stress between male and female correctional officers were analyzed with ANOVA. Females were found to be significantly more vulnerable to overall stress (P-Value = 0.0006) than males. The average male answer to any of the Likert-scale questions was  $59.62/15 = 3.97$ , and the average female answer to any of the Likert-scale questions was  $69.78/15 = 4.65$ . Table 7 presents the typical male and female scores on each of the questions of the ORQ; P-values less than 0.05 indicate where the scores are significantly different, and these stressors are highlighted in yellow.

Table 7 demonstrates that females rate their stress significantly higher than males in the areas of overtime demands, risk of being injured, not enough time with family, lack of

administrative support, lack of proper training, lack of participation in decision making, lack of job satisfaction, insufficient salary, and immediate supervisor.

Table 7. Comparison of Stress by Gender

<b>Current Stressor</b>	<b>Male Mean Score</b>	<b>Female Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	59.62	69.78	0.0006
<b>Shift Work</b>	3.26	3.54	0.3442
<b>Overtime Demands</b>	4.62	5.82	0.0001
<b>Risk of Being Injured</b>	4.09	4.74	0.0171
<b>Not Enough Time with Family</b>	4.40	5.51	0.0002
<b>Work Overload and Work Underload</b>	4.20	4.74	0.0671
<b>Role Conflict</b>	3.76	3.88	0.6537
<b>Lack of Administrative Support</b>	4.52	5.42	0.0024
<b>Lack of Proper Training</b>	3.54	4.37	0.0027
<b>Lack of participation in decision making</b>	3.95	4.55	0.0427
<b>Lack of Job Satisfaction</b>	3.80	4.65	0.0039
<b>Interaction with inmates</b>	3.52	3.72	0.4246
<b>Crisis Situations</b>	3.75	4.11	0.1868
<b>Insufficient Salary</b>	5.19	6.46	0.0000
<b>Role Ambiguity</b>	3.70	4.18	0.0717
<b>Immediate Supervisor</b>	3.32	3.54	0.0050

Next the differences in vulnerability to stress according to current work shift were analyzed with ANOVA. No significant differences were found in overall stress based on shift. Table 8 presents the average scores on each of the questions of the ORQ according to shift; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in stressors based on shift.

Table 8. Comparison of Stress by Shift Worked

<b>Current Stressor</b>	<b>Shift 1 Mean Score</b>	<b>Shift 2 Mean Score</b>	<b>Shift 3 Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	62.75	61.96	64.81	0.7163
<b>Shift Work</b>	3.29	3.54	3.13	0.4929
<b>Overtime Demands</b>	4.78	4.84	5.58	0.0613
<b>Risk of Being Injured</b>	4.29	4.28	4.37	0.9592
<b>Not Enough Time with Family</b>	4.51	4.76	5.10	0.2808
<b>Work Overload and Work Underload</b>	4.34	4.41	4.38	0.9739
<b>Role Conflict</b>	3.74	3.85	3.79	0.9342
<b>Lack of Administrative Support</b>	5.11	4.65	4.71	0.3384
<b>Lack of Proper Training</b>	4.15	3.69	3.58	0.1799
<b>Lack of participation in decision making</b>	3.98	4.09	4.43	0.4485
<b>Lack of Job Satisfaction</b>	4.18	3.89	4.25	0.5054
<b>Interaction with inmates</b>	3.77	3.46	3.56	0.5336
<b>Crisis Situations</b>	3.82	3.71	4.17	0.3371
<b>Insufficient Salary</b>	5.55	5.34	6.10	0.0687
<b>Role Ambiguity</b>	3.57	3.98	4.04	0.2779
<b>Immediate Supervisor</b>	3.66	3.49	3.63	0.8411

Next, the differences in vulnerability to stress based on marital status were analyzed with ANOVA. Note that due to only two widowed individuals in the sample, these two individuals were combined with the divorced group to create three groups: married, formerly married, and single. Those who were single reported significantly less overall stress than those who were married or formerly married (P-Value = 0.0005). The average single answer to any of the Likert-scale questions was  $58.00/15 = 3.87$ , the average married answer to any of the Likert-scale questions was  $66.56/15 = 4.44$ , and the average formerly-married answer to any of the Likert-scale questions was  $70.73/15 = 4.72$ . Table 9 presents the average ORQ scores by marital status; P-values less than 0.05 indicate where the scores are significantly different, and these stressors are highlighted in yellow.



Table 9 demonstrates that married and formerly-married correctional officers reported significantly more stress than single correctional officers in the areas of overtime demands, risk of being injured, not enough time with family, lack of proper training, lack of job satisfaction, and insufficient salary. Additionally, formerly-married correctional officers reported more stress than married or single correctional officers in the areas of lack of administrative support, and they reported more stress than single correctional officers in the areas of lack of participation in decision making and role ambiguity.

Table 9. Comparison of Stress by Marital Status

<b>Current Stressor</b>	<b>Married Mean Score</b>	<b>Formerly Married Mean Score</b>	<b>Single Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	66.56	70.73	58.00	0.0005
<b>Shift Work</b>	3.44	3.68	3.18	0.3666
<b>Overtime Demands</b>	5.56	5.73	4.44	0.0001
<b>Risk of Being Injured</b>	4.69	4.83	3.89	0.0032
<b>Not Enough Time with Family</b>	5.25	5.20	4.33	0.0058
<b>Work Overload and Work Underload</b>	4.51	4.93	4.10	0.0589
<b>Role Conflict</b>	4.09	4.08	3.52	0.0871
<b>Lack of Administrative Support</b>	4.85	5.75	4.43	0.0012
<b>Lack of Proper Training</b>	4.25	4.38	3.35	0.0012
<b>Lack of participation in decision making</b>	4.17	4.85	3.86	0.0262
<b>Lack of Job Satisfaction</b>	4.58	4.40	3.69	0.0107
<b>Interaction with inmates</b>	3.72	3.93	3.38	0.1752
<b>Crisis Situations</b>	3.96	4.30	3.65	0.1337
<b>Insufficient Salary</b>	5.89	6.25	5.21	0.0040
<b>Role Ambiguity</b>	3.91	4.43	3.61	0.0473
<b>Immediate Supervisor</b>	3.67	4.05	3.35	0.1346

Next, the differences in vulnerability to stress based on education were analyzed with ANOVA. Note that due to only two individuals with master's degrees in the sample, these two individuals were combined with the bachelor's degree group to create three groups: high school,

associate's degree, and bachelor's degree. No differences in overall stress were found to be significant. Table 10 presents the average ORQ scores by education; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in stressors based on education.

Table 10. Comparison of Stress by Education

<b>Current Stressor</b>	<b>High School Mean Score</b>	<b>Associate's Mean Score</b>	<b>Bachelor's Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	62.13	65.64	61.48	0.5084
<b>Shift Work</b>	3.15	3.64	3.58	0.2491
<b>Overtime Demands</b>	5.05	5.34	4.32	0.0767
<b>Risk of Being Injured</b>	4.42	4.21	4.03	0.5063
<b>Not Enough Time with Family</b>	4.85	4.87	4.29	0.3468
<b>Work Overload and Work Underload</b>	4.43	4.49	4.00	0.4817
<b>Role Conflict</b>	3.88	3.74	3.57	0.6573
<b>Lack of Administrative Support</b>	4.67	5.26	4.58	0.1459
<b>Lack of Proper Training</b>	3.75	3.89	3.90	0.8700
<b>Lack of participation in decision making</b>	4.05	4.28	4.23	0.7566
<b>Lack of Job Satisfaction</b>	3.90	4.25	4.45	0.2933
<b>Interaction with inmates</b>	3.56	3.74	3.42	0.6895
<b>Crisis Situations</b>	3.78	4.15	3.71	0.3981
<b>Insufficient Salary</b>	5.54	5.92	5.32	0.2995
<b>Role Ambiguity</b>	3.77	3.94	4.03	0.7102
<b>Immediate Supervisor</b>	3.30	3.92	4.03	0.0515

Next, the differences in vulnerability to stress based on personality type were analyzed with ANOVA. Note that due to only two individuals who felt they were type C personalities in the sample, these two individuals were combined with those who felt they were type B personalities to form two groups: type A personalities and non-type A personalities. No differences in overall stress were found to be significant by perceived personality type. Table 11 presents the average ORQ scores by perceived personality type; P-values less than 0.05 indicate

where the scores are significantly different, and as this did not occur here there are no significant differences found in stressors based on perceived personality type.

Table 11. Comparison of Stress by Perceived Personality Type

<b>Current Stressor</b>	<b>Type A Mean Score</b>	<b>Non-Type A Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	62.54	63.43	0.7536
<b>Shift Work</b>	3.27	3.44	0.5427
<b>Overtime Demands</b>	4.99	5.04	0.8574
<b>Risk of Being Injured</b>	4.13	4.49	0.1597
<b>Not Enough Time with Family</b>	4.63	4.91	0.3357
<b>Work Overload and Work Underload</b>	4.50	4.25	0.3542
<b>Role Conflict</b>	3.75	3.84	0.7125
<b>Lack of Administrative Support</b>	4.82	4.81	0.9735
<b>Lack of Proper Training</b>	3.89	3.73	0.5397
<b>Lack of participation in decision making</b>	4.22	4.06	0.5749
<b>Lack of Job Satisfaction</b>	4.11	4.05	0.8379
<b>Interaction with inmates</b>	3.39	3.79	0.0941
<b>Crisis Situations</b>	3.71	4.03	0.2143
<b>Insufficient Salary</b>	5.59	5.63	0.9074
<b>Role Ambiguity</b>	3.90	3.81	0.7293
<b>Immediate Supervisor</b>	3.62	3.54	0.7633

Next, the differences in vulnerability to stress based on prison security level were analyzed with ANOVA. No differences in overall stress were found to be significant by prison security level. Table 12 presents the average ORQ scores by prison security level; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in stressors based on prison security level.

Table 12. Comparison of Stress by Prison Security Level

<b>Current Stressor</b>	<b>Minimum Mean Score</b>	<b>Medium Mean Score</b>	<b>Maximum Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	63.78	62.66	63.02	0.9582
<b>Shift Work</b>	3.86	3.36	3.03	0.1284
<b>Overtime Demands</b>	4.83	5.00	5.15	0.7570
<b>Risk of Being Injured</b>	4.28	4.27	4.37	0.9407
<b>Not Enough Time with Family</b>	4.81	4.74	4.79	0.9783
<b>Work Overload and Work Underload</b>	4.56	4.16	4.63	0.2723
<b>Role Conflict</b>	4.03	3.73	3.77	0.6863
<b>Lack of Administrative Support</b>	4.75	4.84	4.82	0.9733
<b>Lack of Proper Training</b>	4.08	3.71	3.82	0.5795
<b>Lack of participation in decision making</b>	4.11	4.05	4.31	0.7106
<b>Lack of Job Satisfaction</b>	4.00	4.13	4.05	0.9300
<b>Interaction with inmates</b>	3.44	3.59	3.66	0.8277
<b>Crisis Situations</b>	3.77	3.85	3.95	0.8843
<b>Insufficient Salary</b>	5.58	5.55	5.73	0.8335
<b>Role Ambiguity</b>	3.81	3.98	3.69	0.6041
<b>Immediate Supervisor</b>	3.86	3.70	3.24	0.2123

Next, the differences in vulnerability to stress based on the correctional officer's view of the primary purpose of prison were analyzed with ANOVA. No differences in overall stress were found to be significant by the view of the purpose of prison. Table 13 presents the average ORQ scores by the view of prison purpose; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in stressors based on the view of prison purpose.

Table 13. Comparison of Stress by View of Primary Purpose of Prison

<b>Current Stressor</b>	<b>Rehabilitation Mean Score</b>	<b>Incapacitation Mean Score</b>	<b>Punishment Mean Score</b>	<b>Deterrence Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	61.71	66.64	61.89	63.43	0.6568
<b>Shift Work</b>	3.09	3.48	3.60	3.43	0.4949
<b>Overtime Demands</b>	5.16	5.64	4.56	4.75	0.0740
<b>Risk of Being Injured</b>	4.37	3.97	4.44	4.11	0.6027
<b>Not Enough Time with Family</b>	4.68	4.91	4.72	4.82	0.9504
<b>Work Overload and Work Underload</b>	4.44	4.39	4.23	4.50	0.9141
<b>Role Conflict</b>	3.61	3.97	3.79	3.86	0.7836
<b>Lack of Administrative Support</b>	4.84	5.36	4.65	4.46	0.2729
<b>Lack of Proper Training</b>	3.63	4.42	3.74	3.82	0.2213
<b>Lack of participation in decision making</b>	4.05	4.36	3.98	4.37	0.7301
<b>Lack of Job Satisfaction</b>	3.89	4.42	4.05	4.14	0.6265
<b>Interaction with inmates</b>	3.68	3.67	3.47	3.37	0.8067
<b>Crisis Situations</b>	3.65	4.00	4.02	4.00	0.6251
<b>Insufficient Salary</b>	5.63	5.88	5.30	5.89	0.4082
<b>Role Ambiguity</b>	3.51	4.21	3.93	4.21	0.1504
<b>Immediate Supervisor</b>	3.47	3.94	3.42	3.68	0.5961

Next, the differences in vulnerability to stress between correctional officers with positive and negative relationships to their supervisors were analyzed with ANOVA. Those with a negative relationship with their supervisor were found to be significantly more vulnerable to overall stress ( $P\text{-Value} = 0.0006$ ) than those with a positive relationship. The average answer to any of the Likert-scale questions for those with a positive relationship was  $60.80/15 = 4.05$ , and the average answer to any of the Likert-scale questions for those with a negative relationships was  $72.69/15 = 4.85$ . Table 14 presents the average scores on each of the questions of the ORQ by supervisor relationships; P-values less than 0.05 indicate where the scores are significantly different, and these stressors are highlighted in yellow.

Table 14 demonstrates that correctional officers with negative relationships to their supervisors rate their stress significantly higher than those with positive relationships in the areas of shift work, overtime demands, risk of being injured, not enough time with family, work overload and work underload, role conflict, lack of participation in decision making, lack of job satisfaction, role ambiguity, and immediate supervisor.

Table 14. Comparison of Stress by Relationship with Supervisor

Current Stressor	Positive Mean Score	Negative Mean Score	P-value of Difference
<b>Overall Stress</b>	60.80	72.69	0.0009
<b>Shift Work</b>	3.22	3.94	0.0433
<b>Overtime Demands</b>	4.84	5.78	0.0113
<b>Risk of Being Injured</b>	4.16	4.97	0.0134
<b>Not Enough Time with Family</b>	4.63	5.39	0.0367
<b>Work Overload and Work Underload</b>	4.21	5.14	0.0086
<b>Role Conflict</b>	3.65	4.49	0.0108
<b>Lack of Administrative Support</b>	4.69	5.39	0.0518
<b>Lack of Proper Training</b>	3.73	4.17	0.2033
<b>Lack of participation in decision making</b>	3.92	5.11	0.0008
<b>Lack of Job Satisfaction</b>	3.90	4.89	0.0055
<b>Interaction with inmates</b>	3.49	4.03	0.0810
<b>Crisis Situations</b>	3.83	4.03	0.5536
<b>Insufficient Salary</b>	5.55	5.89	0.3190
<b>Role Ambiguity</b>	3.65	4.78	0.0005
<b>Immediate Supervisor</b>	3.33	4.72	0.0001

Next, the differences in vulnerability to stress among correctional officers with different numbers of children were analyzed with ANOVA. There is no significant difference in overall stress levels for correctional officers with different numbers of children. Table 15 presents the average scores on each of the questions of the ORQ by number of children; P-values less than 0.05 indicate where the scores are significantly different, and these stressors are highlighted in yellow. Correctional officers with four children reported significantly *lower* stress in the area of not enough time with family when compared to officers with one, two, three, or five children, and correctional officers with zero children reported significantly lower stress in this area than officers with five children. Additionally, correctional officers with one child reported significantly higher stress than those with zero, two, or four children in the area of work overload and work underload, and those with three children also scored significantly higher stress in this area than those with four children.

Table 15. Comparison of Stress by Number of Children

<b>Current Stressor</b>	<b>Zero Mean Score</b>	<b>One Mean Score</b>	<b>Two Mean Score</b>	<b>Three Mean Score</b>	<b>Four Mean Score</b>	<b>Five Mean Score</b>	<b>P-value of Difference</b>
<b>Overall Stress</b>	57.69	68.18	63.74	63.07	52.83	69.82	0.0696
<b>Shift Work</b>	3.10	3.58	3.29	3.48	2.83	4.00	0.6448
<b>Overtime Demands</b>	4.85	5.34	4.93	5.24	3.75	5.82	0.1379
<b>Risk of Being Injured</b>	3.82	4.63	4.29	4.59	3.83	4.73	0.2857
<b>Not Enough Time with Family</b>	4.28	5.13	4.91	4.76	3.42	5.82	0.0248
<b>Work Overload and Work Underload</b>	3.95	5.13	4.32	4.55	3.17	4.55	0.0226
<b>Role Conflict</b>	3.59	4.11	3.79	3.76	3.17	4.27	0.5555
<b>Lack of Administrative Support</b>	4.44	5.24	5.00	4.52	4.08	5.18	0.2527
<b>Lack of Proper Training</b>	3.36	3.95	4.03	3.93	3.25	3.91	0.4496
<b>Lack of participation in decision making</b>	3.74	4.66	4.34	3.89	3.08	4.36	0.0999
<b>Lack of Job Satisfaction</b>	3.90	4.53	4.32	3.66	3.33	3.64	0.2087
<b>Interaction with inmates</b>	3.32	3.55	3.68	3.72	3.17	4.18	0.6240
<b>Crisis Situations</b>	3.26	4.29	3.91	3.82	3.75	4.55	0.1378
<b>Insufficient Salary</b>	5.26	5.76	5.68	5.38	5.50	6.64	0.3492
<b>Role Ambiguity</b>	3.46	4.16	3.87	4.03	3.17	4.45	0.2795
<b>Immediate Supervisor</b>	3.36	4.13	3.37	3.72	3.33	3.73	0.4210

Next, the relationship between age and vulnerability to stress was examined with linear regression. Table 16, which follows, records the slope of each linear regression model for predicting ORQ responses with a correctional officer's age, which is interpreted as the expected increase (or decrease, if negative) in stress level given a one-year increase in age. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among ORQ scores that is related to age. The closer this number is to 1, the higher the degree to which age can predict a



correctional officer's ORQ score. The relationship between age and overall stress is not statistically significant. Table 16 presents the predicted slopes of the relationships between age and each stressor; P-values less than 0.05 indicate where the relationship is statistically significant, and these stressors are highlighted in yellow.

Table 16 demonstrates that as age increases, expected stress level significantly decreases in the area of not enough time with family, and conversely stress level significantly increases in the area of role ambiguity.

Table 16. Relationships of Stress and Age

<b>Current Stressor</b>	<b>Slope</b>	<b>R<sup>2</sup></b>	<b>P-Value of Slope</b>
<b>Overall Stress</b>	0.0242	0.0002	0.8381
<b>Shift Work</b>	0.0011	0.0000	0.9252
<b>Overtime Demands</b>	0.0022	0.0002	0.8558
<b>Risk of Being Injured</b>	-0.0102	0.0046	0.3428
<b>Not Enough Time with Family</b>	-0.0251	0.0229	0.0339
<b>Work Overload and Work Underload</b>	0.0042	0.0007	0.7193
<b>Role Conflict</b>	0.0102	0.0047	0.3387
<b>Lack of Administrative Support</b>	0.0065	0.0016	0.5798
<b>Lack of Proper Training</b>	-0.0069	0.0020	0.5326
<b>Lack of participation in decision making</b>	0.0134	0.0068	0.2521
<b>Lack of Job Satisfaction</b>	0.0044	0.0007	0.7089
<b>Interaction with inmates</b>	0.0026	0.0003	0.7947
<b>Crisis Situations</b>	-0.0007	0.0000	0.9472
<b>Insufficient Salary</b>	0.0010	0.0000	0.9282
<b>Role Ambiguity</b>	0.0222	0.0219	0.0379
<b>Immediate Supervisor</b>	-0.0002	0.0000	0.9873

Next, the relationship between years worked in prison and vulnerability to stress was examined with linear regression. Table 17, which follows, records the slope of each linear regression model for predicting ORQ responses with the number of years a correctional officer has worked in prison, which is interpreted as the expected increase (or decrease, if negative) in

stress level given a one-year increase in prison work. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among ORQ scores that is related to number of years worked in prison. The closer this number is to 1, the higher the degree to which years worked can predict a correctional officer's stressor score. The relationship between number of years spent in prison work and overall stress is not statistically significant. Table 17 presents the predicted slopes of the relationships between years worked and each stressor; P-values less than 0.05 indicate where the relationship is statistically significant, and these stressors are highlighted in yellow.

Table 17 demonstrates that as years worked increases, expected stress level significantly increases in the areas of lack of participation in decision making, role ambiguity, and immediate supervisor.

Table 17. Relationships of Stress and Years Worked in Prison

<b>Current Stressor</b>	<b>Slope</b>	<b>R<sup>2</sup></b>	<b>P-Value of Slope</b>
<b>Overall Stress</b>	0.2149	0.0064	0.2639
<b>Shift Work</b>	0.0019	0.0000	0.9220
<b>Overtime Demands</b>	0.0105	0.0015	0.5919
<b>Risk of Being Injured</b>	-0.0070	0.0008	0.6896
<b>Not Enough Time with Family</b>	-0.0293	0.0117	0.1306
<b>Work Overload and Work Underload</b>	0.0142	0.0029	0.4508
<b>Role Conflict</b>	0.0210	0.0075	0.2271
<b>Lack of Administrative Support</b>	0.0241	0.0082	0.2064
<b>Lack of Proper Training</b>	0.0022	0.0001	0.9048
<b>Lack of participation in decision making</b>	0.0451	0.0290	0.0173
<b>Lack of Job Satisfaction</b>	0.0292	0.0121	0.1236
<b>Interaction with inmates</b>	-0.0064	0.0008	0.6981
<b>Crisis Situations</b>	0.0034	0.0002	0.8463
<b>Insufficient Salary</b>	0.0266	0.0110	0.1428
<b>Role Ambiguity</b>	0.0421	0.0297	0.0155
<b>Immediate Supervisor</b>	0.0376	0.0208	0.0430

Finally, the relationship between hours spent with inmates each week and vulnerability to stress was examined with linear regression. Table 18, which follows, records the slope of each

linear regression model for predicting ORQ responses with the average number of hours per week in which the correctional officer works with inmates, which is interpreted as the expected increase (or decrease, if negative) in stress level given a one hour per week increase in time spent with inmates. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among stressor scores that is related to number of hours spent with inmates. The closer this number is to 1, the higher the degree to which number of hours spent with inmates can predict a correctional officer's stressor score. The relationship between number of hours spent with inmates and overall stress is not statistically significant. Table 18 presents the predicted slopes of the relationships between hours spent and each stressor; P-values less than 0.05 indicate where the relationship is statistically significant, and as this did not occur here there are no significant relationships between stress levels and hours spent with inmates.

Table 18. Relationships of Stress and Hours Spent with Inmates

<b>Current Stressor</b>	<b>Slope</b>	<b>R<sup>2</sup></b>	<b>P-Value of Slope</b>
<b>Overall Stress</b>	0.0665	0.0020	0.5356
<b>Shift Work</b>	-0.0201	0.0183	0.0583
<b>Overtime Demands</b>	0.0123	0.0064	0.2629
<b>Risk of Being Injured</b>	-0.0018	0.0002	0.8583
<b>Not Enough Time with Family</b>	0.0052	0.0012	0.6330
<b>Work Overload and Work Underload</b>	0.0072	0.0024	0.4955
<b>Role Conflict</b>	0.0063	0.0022	0.5161
<b>Lack of Administrative Support</b>	0.0174	0.0136	0.1028
<b>Lack of Proper Training</b>	0.0067	0.0023	0.5036
<b>Lack of participation in decision making</b>	0.0103	0.0048	0.3351
<b>Lack of Job Satisfaction</b>	0.0001	0.0000	0.9961
<b>Interaction with inmates</b>	-0.0014	0.0001	0.8761
<b>Crisis Situations</b>	0.0004	0.0000	0.9683
<b>Insufficient Salary</b>	0.0175	0.0152	0.0840
<b>Role Ambiguity</b>	0.0123	0.0082	0.2061
<b>Immediate Supervisor</b>	-0.0056	0.0015	0.5917

*Carver COPE*

To determine whether the demographic variables demonstrate significant relationships to COPE scores, ANOVAs (for categorical demographic variables) and linear regressions (for continuous demographic variables) were conducted. The responses were the 16 individual Likert-scale questions gauging the frequency of use of each coping response.

First, the differences in frequency ratings of coping strategy among correctional officers of various races were analyzed with ANOVA. Again, five individuals of Asian and Hispanic descent were combined with the Caucasian correctional officers to form an "Other" group. Table 19 presents the average coping strategy scores according to race; P-values less than 0.05 indicate where the frequency ratings are significantly different, and these strategies are highlighted in yellow.

Table 19 demonstrates that on average, African-Americans report higher frequency ratings for getting rid of the problem, seeking support from family, seeking advice about what to do, seeking spiritual help, waiting and not overreacting, or trying to see it in a different light; they also report lower frequency ratings for criticizing themselves.

Table 19. Comparison of Coping Strategy Frequency Ratings by Race

Strategy	African-American Mean Score	Other Races Mean Score	P-value of Difference
<b>Get Rid of the Problem</b>	3.71	2.90	0.0000
<b>Let Out My Emotions</b>	2.69	2.55	0.3810
<b>Seek Support from Family</b>	3.32	2.91	0.0376
<b>Seek Advice about what to do</b>	3.29	2.88	0.0172
<b>Seek Spiritual Help</b>	4.39	3.50	0.0000
<b>Wait, Don't Overreact</b>	3.71	3.29	0.0087
<b>Typically become Emotionally Distressed</b>	2.43	2.31	0.4438
<b>Exercise</b>	3.50	3.55	0.7738
<b>Use Alcohol, Smoke or use other Drugs</b>	1.81	2.09	0.1472
<b>Try to see it in a different light, make it positive</b>	3.53	3.14	0.0108
<b>Criticize Myself</b>	2.32	2.83	0.0018
<b>Come up with Strategy to Improve Situation</b>	3.86	3.59	0.0639
<b>Seek Therapy</b>	1.56	1.72	0.3316
<b>Go to movies, watch television, read, sleep, etc.</b>	3.45	3.21	0.1689
<b>Learn to live with it</b>	3.32	3.19	0.4425
<b>Meditate</b>	2.56	2.28	0.1733

Next, the differences in frequency ratings of coping strategy between male and female correctional officers were analyzed with ANOVA. Table 20 presents the typical male and female scores on each of the coping strategies; P-values less than 0.05 indicate where the scores are significantly different, and these strategies are highlighted in yellow.

Table 20 demonstrates that on average, females report higher frequency ratings than males for getting rid of the problem, letting out their emotions, seeking support from family, seeking advice about what to do, seeking spiritual help, waiting and not overreacting, typically becoming emotionally distressed, trying to see it in a different light, going to movies, watching television, reading, sleeping, etc., and meditating.

Table 20. Comparison of Coping Strategy Frequency Ratings by Gender

<b>Strategy</b>	<b>Male Mean Score</b>	<b>Female Mean Score</b>	<b>P-value of Difference</b>
<b>Get Rid of the Problem</b>	3.36	3.71	0.0345
<b>Let Out My Emotions</b>	2.54	2.88	0.0256
<b>Seek Support from Family</b>	2.95	3.72	0.0000
<b>Seek Advice about what to do</b>	3.02	3.46	0.0082
<b>Seek Spiritual Help</b>	3.83	4.74	0.0000
<b>Wait, Don't Overreact</b>	3.42	3.91	0.0014
<b>Typically become Emotionally Distressed</b>	2.29	2.62	0.0380
<b>Exercise</b>	3.52	3.52	0.9611
<b>Use Alcohol, Smoke or use other Drugs</b>	1.97	1.72	0.1887
<b>Try to see it in a different light, make it positive</b>	3.27	3.71	0.0037
<b>Criticize Myself</b>	2.52	2.38	0.4101
<b>Come up with Strategy to Improve Situation</b>	3.73	3.88	0.3286
<b>Seek Therapy</b>	1.60	1.63	0.8429
<b>Go to movies, watch television, read, sleep, etc.</b>	3.23	3.69	0.0070
<b>Learn to live with it</b>	3.27	3.31	0.7907
<b>Meditate</b>	2.23	2.97	0.0002

Next the differences in frequency ratings of coping strategy according to current work shift were analyzed with ANOVA. Table 21 presents the average scores on each of the coping strategies according to shift; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in coping strategy frequency ratings based on shift.

Table 21. Comparison of Coping Strategy Frequency Ratings by Shift Worked

<b>Strategy</b>	<b>Shift 1 Mean Score</b>	<b>Shift 2 Mean Score</b>	<b>Shift 3 Mean Score</b>	<b>P-value of Difference</b>
<b>Get Rid of the Problem</b>	3.46	3.46	3.50	0.9777
<b>Let Out My Emotions</b>	2.81	2.54	2.62	0.2481
<b>Seek Support from Family</b>	3.26	3.00	3.42	0.1457
<b>Seek Advice about what to do</b>	3.32	2.98	3.27	0.1230
<b>Seek Spiritual Help</b>	4.28	4.09	4.00	0.4889
<b>Wait, Don't Overreact</b>	3.52	3.73	3.44	0.2452
<b>Typically become Emotionally Distressed</b>	2.46	2.39	2.33	0.7835
<b>Exercise</b>	3.57	3.54	3.42	0.7472
<b>Use Alcohol, Smoke or use other Drugs</b>	1.83	1.89	1.96	0.8520
<b>Try to see it in a different light, make it positive</b>	3.45	3.40	3.40	0.9573
<b>Criticize Myself</b>	2.43	2.63	2.29	0.1799
<b>Come up with Strategy to Improve Situation</b>	3.85	3.76	3.73	0.7907
<b>Seek Therapy</b>	1.66	1.44	1.81	0.1356
<b>Go to movies, watch television, read, sleep, etc.</b>	3.48	3.25	3.46	0.4160
<b>Learn to live with it</b>	3.40	3.13	3.37	0.2338
<b>Meditate</b>	2.63	2.24	2.65	0.1147

Next, the differences in frequency ratings of coping strategy based on marital status were analyzed with ANOVA. Again, two widowed individuals in the sample were combined with the divorced group to create three groups: married, formerly married, and single. Table 22 presents the average coping strategy scores by marital status; P-values less than 0.05 indicate where the scores are significantly different, and these strategies are highlighted in yellow.

Table 22 demonstrates the only significant difference in frequency ratings of coping strategies by marital status is that married correctional officers report significant higher frequency ratings than single individuals for going to movies, watching television, reading, sleeping, etc.

Table 22. Comparison of Coping Strategy Frequency Ratings by Marital Status

<b>Strategy</b>	<b>Married Mean Score</b>	<b>Formerly Married Mean Score</b>	<b>Single Mean Score</b>	<b>P-value of Difference</b>
<b>Get Rid of the Problem</b>	3.56	3.45	3.43	0.7664
<b>Let Out My Emotions</b>	2.46	2.85	2.67	0.1691
<b>Seek Support from Family</b>	3.30	3.10	3.19	0.7459
<b>Seek Advice about what to do</b>	3.11	3.10	3.23	0.7470
<b>Seek Spiritual Help</b>	4.13	4.30	4.06	0.6109
<b>Wait, Don't Overreact</b>	3.60	3.48	3.62	0.7453
<b>Typically become Emotionally Distressed</b>	2.40	2.50	2.36	0.7609
<b>Exercise</b>	3.67	3.55	3.42	0.3651
<b>Use Alcohol, Smoke or use other Drugs</b>	1.76	1.78	2.00	0.4236
<b>Try to see it in a different light, make it positive</b>	3.62	3.30	3.35	0.1998
<b>Criticize Myself</b>	2.51	2.65	2.38	0.3718
<b>Come up with Strategy to Improve Situation</b>	3.84	3.90	3.71	0.4915
<b>Seek Therapy</b>	1.65	1.48	1.64	0.6737
<b>Go to movies, watch television, read, sleep, etc.</b>	3.76	3.50	3.13	0.0027
<b>Learn to live with it</b>	3.18	3.48	3.25	0.3878
<b>Meditate</b>	2.65	2.65	2.31	0.2073

Next, the differences in frequency ratings of coping strategy based on education were analyzed with ANOVA. Again, two individuals with master's degrees were combined with the bachelor's degree group to create three groups: high school, associate's degree, and college degree. Table 23 presents the average coping strategy scores by education; P-values less than 0.05 indicate where the scores are significantly different, and these strategies are highlighted in yellow.

Table 23 demonstrates that the only significant difference in frequency ratings of coping strategy based on education is that on average, correctional officers with college degrees report



significantly higher frequency ratings than those with high school or associate's degrees for seeking therapy.

Table 23. Comparison of Coping Strategy Frequency Ratings by Education

<b>Strategy</b>	<b>High School Mean Score</b>	<b>Associate's Mean Score</b>	<b>College Mean Score</b>	<b>P-value of Difference</b>
<b>Get Rid of the Problem</b>	3.37	3.60	3.61	0.3329
<b>Let Out My Emotions</b>	2.65	2.68	2.60	0.9410
<b>Seek Support from Family</b>	3.28	3.19	2.94	0.4038
<b>Seek Advice about what to do</b>	3.18	3.21	3.06	0.8409
<b>Seek Spiritual Help</b>	4.16	4.23	3.84	0.3863
<b>Wait, Don't Overreact</b>	3.63	3.64	3.32	0.2927
<b>Typically become Emotionally Distressed</b>	2.41	2.43	2.29	0.8137
<b>Exercise</b>	3.46	3.45	3.84	0.1898
<b>Use Alcohol, Smoke or use other Drugs</b>	1.90	1.83	1.94	0.9159
<b>Try to see it in a different light, make it positive</b>	3.49	3.34	3.29	0.5041
<b>Criticize Myself</b>	2.49	2.42	2.52	0.8897
<b>Come up with Strategy to Improve Situation</b>	3.81	3.91	3.48	0.1382
<b>Seek Therapy</b>	1.54	1.45	2.13	0.0110
<b>Go to movies, watch television, read, sleep, etc.</b>	3.41	3.26	3.48	0.6519
<b>Learn to live with it</b>	3.20	3.42	3.32	0.4707
<b>Meditate</b>	2.48	2.51	2.42	0.9571

Next, the differences in frequency ratings of coping strategy based on personality type were analyzed with ANOVA. Again, two individuals who felt they were type C personalities were combined with those who felt they were type B personalities to form two groups: type A personalities and non-type A personalities. Table 24 presents the average coping strategy scores by perceived personality type; P-values less than 0.05 indicate where the scores are significantly different, and these strategies are highlighted in yellow.

Table 24 demonstrates that on average, correctional officers who perceived themselves as having Type A reported significantly higher frequency ratings for seeking spiritual help, waiting and not overreacting, and exercising.

Table 24. Comparison of Coping Strategy Frequency Ratings by Perceived Personality Type

Strategy	Type A Mean Score	Non-Type A Mean Score	P-value of Difference
Get Rid of the Problem	3.51	3.43	0.5769
Let Out My Emotions	2.66	2.63	0.8236
Seek Support from Family	3.30	3.09	0.2574
Seek Advice about what to do	3.17	3.17	0.9916
Seek Spiritual Help	4.31	3.94	0.0454
Wait, Don't Overreact	3.72	3.44	0.0472
Typically become Emotionally Distressed	2.31	2.49	0.2256
Exercise	3.69	3.33	0.0176
Use Alcohol, Smoke or use other Drugs	1.94	1.83	0.5441
Try to see it in a different light, make it positive	3.50	3.33	0.2550
Criticize Myself	2.43	2.52	0.5237
Come up with Strategy to Improve Situation	3.84	3.72	0.3694
Seek Therapy	1.66	1.55	0.4675
Go to movies, watch television, read, sleep, etc.	3.26	3.51	0.1210
Learn to live with it	3.21	3.35	0.3315
Meditate	2.45	2.51	0.7348

Next, the differences in frequency ratings of coping strategy based on prison security level were analyzed with ANOVA. Table 25 presents the average coping strategy scores by prison security level; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in coping strategy frequency ratings based on prison security level.

Table 25. Comparison of Coping Strategy Frequency Ratings by Prison Security Level

<b>Strategy</b>	<b>Minimum Mean Score</b>	<b>Medium Mean Score</b>	<b>Maximum Mean Score</b>	<b>P-value of Difference</b>
<b>Get Rid of the Problem</b>	3.39	3.51	3.47	0.8637
<b>Let Out My Emotions</b>	2.71	2.55	2.77	0.3332
<b>Seek Support from Family</b>	3.14	3.20	3.23	0.9516
<b>Seek Advice about what to do</b>	3.08	3.20	3.16	0.8577
<b>Seek Spiritual Help</b>	4.03	4.21	4.05	0.6513
<b>Wait, Don't Overreact</b>	3.58	3.64	3.50	0.7085
<b>Typically become Emotionally Distressed</b>	2.23	2.43	2.44	0.5676
<b>Exercise</b>	3.67	3.58	3.34	0.2554
<b>Use Alcohol, Smoke or use other Drugs</b>	1.67	1.97	1.89	0.4546
<b>Try to see it in a different light, make it positive</b>	3.44	3.42	3.39	0.9571
<b>Criticize Myself</b>	2.47	2.39	2.60	0.4884
<b>Come up with Strategy to Improve Situation</b>	4.06	3.76	3.66	0.1360
<b>Seek Therapy</b>	1.56	1.46	1.87	0.0602
<b>Go to movies, watch television, read, sleep, etc.</b>	3.64	3.28	3.39	0.2792
<b>Learn to live with it</b>	3.61	3.13	3.32	0.0593
<b>Meditate</b>	2.31	2.39	2.71	0.2421

Next, the differences in frequency ratings of coping strategy based on the correctional officer's view of the primary purpose of prison were analyzed with ANOVA. Table 26 presents the average coping strategy scores by the view of prison purpose; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in coping strategy frequencies based on the view of prison purpose.

Table 26. Comparison of Coping Strategy Frequency Ratings by View of Primary Reason of Prison

<b>Strategy</b>	<b>Rehabilitation Mean Score</b>	<b>Incapacitation Mean Score</b>	<b>Punishment Mean Score</b>	<b>Deterrence Mean Score</b>	<b>P-value of Difference</b>
<b>Get Rid of the Problem</b>	3.61	3.61	3.37	3.36	0.4867
<b>Let Out My Emotions</b>	2.59	2.73	2.56	2.96	0.3079
<b>Seek Support from Family</b>	3.28	3.09	3.28	3.04	0.7340
<b>Seek Advice about what to do</b>	3.20	2.91	3.35	3.07	0.3078
<b>Seek Spiritual Help</b>	4.12	4.24	4.25	3.96	0.7763
<b>Wait, Don't Overreact</b>	3.61	3.64	3.51	3.71	0.8288
<b>Typically become Emotionally Distressed</b>	2.39	2.45	2.40	2.36	0.9866
<b>Exercise</b>	3.61	3.48	3.47	3.36	0.7201
<b>Use Alcohol, Smoke or use other Drugs</b>	1.89	1.85	1.63	2.39	0.0681
<b>Try to see it in a different light, make it positive</b>	3.55	3.21	3.40	3.46	0.4397
<b>Criticize Myself</b>	2.23	2.67	2.58	2.57	0.1070
<b>Come up with Strategy to Improve Situation</b>	3.84	3.61	3.74	3.93	0.5475
<b>Seek Therapy</b>	1.61	1.67	1.56	1.50	0.9317
<b>Go to movies, watch television, read, sleep, etc.</b>	3.55	3.45	3.23	3.21	0.3451
<b>Learn to live with it</b>	3.28	3.36	3.26	3.18	0.9258
<b>Meditate</b>	2.79	2.18	2.44	2.14	0.0602

Next, the differences in frequency ratings of coping strategy between correctional officers with positive and negative relationships to their supervisors were analyzed with ANOVA. Table

27 presents the average scores on each of the coping strategies by supervisor relationships; P-values less than 0.05 indicate where the scores are significantly different, and these strategies are highlighted in yellow.

Table 27 demonstrates that on average, correctional officers with negative relationships with their supervisors report significantly higher frequency ratings than those with positive relationships with their supervisors for becoming emotionally distressed, smoking, using alcohol or using other drugs, going to movies, watching television, reading, sleeping, etc., and learning to live with it.

Table 27. Comparison of Coping Strategy Frequency Ratings by Relationship with Supervisor

Strategy	Positive Mean Score	Negative Mean Score	P-value of Difference
<b>Get Rid of the Problem</b>	3.51	3.31	0.3162
<b>Let Out My Emotions</b>	2.60	2.86	0.1550
<b>Seek Support from Family</b>	3.13	3.50	0.1091
<b>Seek Advice about what to do</b>	3.24	2.86	0.0645
<b>Seek Spiritual Help</b>	4.16	4.00	0.5175
<b>Wait, Don't Overreact</b>	3.54	3.78	0.2030
<b>Typically become Emotionally Distressed</b>	2.33	2.71	0.0458
<b>Exercise</b>	3.56	3.33	0.2524
<b>Use Alcohol, Smoke or use other Drugs</b>	1.76	2.44	0.0026
<b>Try to see it in a different light, make it positive</b>	3.46	3.22	0.1962
<b>Criticize Myself</b>	2.45	2.56	0.5965
<b>Come up with Strategy to Improve Situation</b>	3.78	3.78	0.9782
<b>Seek Therapy</b>	1.57	1.81	0.2245
<b>Go to movies, watch television, read, sleep, etc.</b>	3.29	3.81	0.0133
<b>Learn to live with it</b>	3.18	3.72	0.0050
<b>Meditate</b>	2.40	2.83	0.0773

Next, the differences in frequency ratings of coping strategy among correctional officers with different numbers of children were analyzed with ANOVA. Table 28 presents the average

scores on each of the coping strategies by number of children; P-values less than 0.05 indicate where the scores are significantly different, and these strategies are highlighted in yellow.

Table 28 demonstrates that on average, correctional officers with zero children report significantly higher frequency ratings than those with two, three or five children for exercising, and correctional officers with one child report significantly higher frequency ratings than those with three or five children for exercising. Additionally, on average, correctional officers with five children report significantly higher frequency ratings for being likely to criticize themselves than individuals with one, three or four children; correctional officers with two children, on average, report significantly higher frequency ratings for criticizing themselves than individuals with three children.

Table 28. Comparison of Coping Strategy Frequency Ratings by Number of Children

Strategy	Zero Mean Score	One Mean Score	Two Mean Score	Three Mean Score	Four Mean Score	Five Mean Score	P-value of Difference
<b>Get Rid of the Problem</b>	3.41	3.79	3.38	3.55	3.17	3.27	0.3973
<b>Let Out My Emotions</b>	2.42	2.89	2.78	2.41	2.42	2.64	0.1684
<b>Seek Support from Family</b>	2.92	3.26	3.34	3.34	3.17	2.73	0.4334
<b>Seek Advice about what to do</b>	2.69	3.29	3.29	3.21	3.25	3.45	0.0890
<b>Seek Spiritual Help</b>	3.87	4.45	4.29	4.07	3.67	3.55	0.1183
<b>Wait, Don't Overreact</b>	3.51	3.58	3.69	3.66	3.08	3.55	0.5437
<b>Typically become Emotionally Distressed</b>	2.15	2.47	2.55	2.31	2.00	2.73	0.2241
<b>Exercise</b>	3.90	3.76	3.43	3.24	3.42	2.73	0.0072
<b>Use Alcohol, Smoke or use other Drugs</b>	1.90	1.87	1.88	2.00	1.92	1.64	0.9829
<b>Try to see it in a different light, make it positive</b>	3.38	3.37	3.47	3.55	3.17	3.27	0.8723
<b>Criticize Myself</b>	2.56	2.26	2.65	2.10	2.08	3.18	0.0132
<b>Come up with Strategy to Improve Situation</b>	3.77	3.97	3.71	3.90	3.50	3.64	0.6023
<b>Seek Therapy</b>	1.38	1.79	1.62	1.69	1.58	1.55	0.7041
<b>Go to movies, watch television, read, sleep, etc.</b>	3.51	3.53	3.46	3.03	3.25	3.00	0.3645
<b>Learn to live with it</b>	3.13	3.29	3.40	3.34	3.08	3.09	0.7759
<b>Meditate</b>	2.28	2.42	2.84	2.14	2.42	2.09	0.1223

Next, the relationships between age and frequency ratings of coping strategies were analyzed with linear regression. Table 29 records the slope of each linear regression model for predicting coping strategy scores with a correctional officer's age, which is interpreted as the expected increase (or decrease, if negative) in frequency rating given a one-year increase in age. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among

copings strategy scores that is related to age. The closer this number is to 1, the higher the degree to which age can predict a correctional officer's frequency rating of coping strategy. Table 29 presents the predicted slopes of the relationships between age and each coping strategy score; P-values less than 0.05 indicate where the relationship is statistically significant, and these coping strategies are highlighted in yellow.

Table 29 demonstrates that as age increases, expected frequency rating significantly decreases for seeking support from family and going to movies, watching TV, reading, sleeping, etc.

Table 29. Relationships of Coping Strategy Frequency Ratings and Age

Strategy	Slope	R <sup>2</sup>	P-Value of Slope
Get Rid of the Problem	-0.0018	0.0004	0.7835
Let Out My Emotions	0.0040	0.0023	0.5066
Seek Support from Family	-0.0186	0.0314	0.0130
Seek Advice about what to do	-0.0075	0.0066	0.2560
Seek Spiritual Help	-0.0134	0.0152	0.0847
Wait, Don't Overreact	-0.0086	0.0103	0.1566
Typically become Emotionally Distressed	-0.0016	0.0004	0.7934
Exercise	-0.0072	0.0065	0.2592
Use Alcohol, Smoke or use other Drugs	0.0003	0.0000	0.9713
Try to see it in a different light, make it positive	-0.0079	0.0090	0.1859
Criticize Myself	0.0086	0.0096	0.1714
Come up with Strategy to Improve Situation	-0.0071	0.0079	0.2136
Seek Therapy	-0.0006	0.0000	0.9247
Go to movies, watch television, read, sleep, etc.	-0.0157	0.0267	0.0217
Learn to live with it	0.0067	0.0057	0.2904
Meditate	-0.0003	0.0000	0.9658

Next, the relationships between years worked in prison and frequency ratings of coping strategies were analyzed with linear regression. The following table records the slope of each



linear regression model for predicting coping strategy scores with the number of years a correctional officer has worked in prison, which is interpreted as the expected increase (or decrease, if negative) in frequency rating given a one-year increase in prison work. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among coping strategy scores that is related to number of years worked in prison. The closer this number is to 1, the higher the degree to which years worked can predict a correctional officer's coping strategy score. Table 30 presents the predicted slopes of the relationships between years worked and each coping strategy; P-values less than 0.05 indicate where the relationship is statistically significant, and these strategies are highlighted in yellow.

Table 30 demonstrates that as years worked increases, expected frequency ratings increase for using alcohol, smoking, or using other drugs, learning to live with it, and meditation; expected frequency ratings decrease for seeking support from family, seeking advice about what to do, seeking spiritual help, coming up with strategies to improve the situation, and going to movies, watching television, reading, sleeping, etc.

Table 30. Relationships of Coping Strategy Frequency Ratings and Years Worked in Prison

Strategy	Slope	R <sup>2</sup>	P-Value of Slope
Get Rid of the Problem	-0.0100	0.0044	0.3554
Let Out My Emotions	-0.0035	0.0007	0.7228
Seek Support from Family	-0.0264	0.0239	0.0307
Seek Advice about what to do	-0.0319	0.0448	0.0028
Seek Spiritual Help	-0.0339	0.0365	0.0071
Wait, Don't Overreact	-0.0027	0.0004	0.7873
Typically become Emotionally Distressed	0.0112	0.0063	0.2678
Exercise	-0.0029	0.0004	0.7798
Use Alcohol, Smoke or use other Drugs	0.0291	0.0295	0.0157
Try to see it in a different light, make it positive	-0.0205	0.0226	0.0348
Criticize Myself	0.0100	0.0049	0.3284
Come up with Strategy to Improve Situation	-0.0220	0.0283	0.0182
Seek Therapy	0.0082	0.0031	0.4347
Go to movies, watch television, read, sleep, etc.	-0.0221	0.0199	0.0480
Learn to live with it	0.0246	0.0291	0.0166
Meditate	0.0094	0.0026	0.4741

Finally, the relationships between hours spent with inmates each week and frequency ratings of coping strategies were examined with linear regression. The following table records the slope of each linear regression model for predicting coping strategy scores with the average number of hours per week in which the correctional officer works with inmates, which is interpreted as the expected increase (or decrease, if negative) in frequency rating given a one hour per week increase in time spent with inmates. It also records the R<sup>2</sup> statistic, which can be interpreted as the proportion of variation among coping strategy scores that is related to number of hours spent with inmates. The closer this number is to 1, the higher the degree to which number of hours spent with inmates can predict a correctional officer's coping strategy score.

Table 31 presents the predicted slopes of the relationships between hours spent and each strategy; P-values less than 0.05 indicate where the relationship is statistically significant, and as

this did not occur here there are no significant relationships between coping strategy frequency ratings and hours spent with inmates.

Table 31. Relationships of Coping Strategy Frequency Ratings and Hours Spent with Inmates

<b>Strategy</b>	<b>Slope</b>	<b>R<sup>2</sup></b>	<b>P-Value of Slope</b>
<b>Get Rid of the Problem</b>	0.0093	0.0124	0.1190
<b>Let Out My Emotions</b>	0.0016	0.0005	0.7652
<b>Seek Support from Family</b>	0.0031	0.0011	0.6501
<b>Seek Advice about what to do</b>	-0.0002	0.0000	0.9737
<b>Seek Spiritual Help</b>	-0.0023	0.0006	0.7409
<b>Wait, Don't Overreact</b>	-0.0054	0.0050	0.3241
<b>Typically become Emotionally Distressed</b>	0.0029	0.0014	0.6057
<b>Exercise</b>	-0.0107	0.0174	0.0648
<b>Use Alcohol, Smoke or use other Drugs</b>	0.0064	0.0047	0.3394
<b>Try to see it in a different light, make it positive</b>	-0.0023	0.0009	0.6679
<b>Criticize Myself</b>	-0.0054	0.0046	0.3461
<b>Come up with Strategy to Improve Situation</b>	0.0003	0.0000	0.9605
<b>Seek Therapy</b>	0.0081	0.0099	0.1632
<b>Go to movies, watch television, read, sleep, etc.</b>	0.0035	0.0016	0.5731
<b>Learn to live with it</b>	-0.0001	0.0000	0.9911
<b>Meditate</b>	-0.0012	0.0001	0.8709

### *Maslach Burnout Inventory (MBI)*

To determine whether the demographic variables demonstrate significant relationships with MBI measures, ANOVAs (for categorical demographic variables) and linear regressions (for continuous demographic variables) were conducted. The responses were the three composite measures from the MBI: Emotional Exhaustion, Personal Accomplishment, and Depersonalization.

First, the differences in MBI scores among correctional officers of various races were analyzed with ANOVA. Again, five individuals of Asian and Hispanic descent were combined with the Caucasian correctional officers to form an "Other" group. Table 32 presents the average

scores on each of the MBI measures according to race; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant relationships between MBI measures and race.

Table 32. Comparison of MBI Measures by Race

<b>MBI Measure</b>	<b>African-American Mean Score</b>	<b>Other Races Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	26.43	27.98	0.2285
<b>Personal Accomplishment</b>	21.87	21.05	0.2996
<b>Depersonalization</b>	16.71	15.45	0.0523

Next, the differences in MBI scores between male and female correctional officers were analyzed with ANOVA. Table 33 presents the typical male and female scores on each of the MBI measures; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant relationships between MBI measures and gender.

Table 33. Comparison of MBI Measures by Gender

<b>MBI Measure</b>	<b>Male Mean Score</b>	<b>Female Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	27.39	25.88	0.2267
<b>Personal Accomplishment</b>	21.45	22.00	0.4702
<b>Depersonalization</b>	16.33	16.34	0.9935

Next the differences in MBI measures according to current work shift were analyzed with ANOVA. Table 34 presents the average scores on each of the MBI measures according to shift; P-values less than 0.05 indicate where the scores are significantly different, and those measures are highlighted in yellow. Here, correctional officers who work the third shift, on average, have significantly higher Personal Accomplishment scores than those who work the first or second shift.

Table 34. Comparison of MBI Measures by Shift Worked

<b>MBI Measure</b>	<b>Shift 1 Mean Score</b>	<b>Shift 2 Mean Score</b>	<b>Shift 3 Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	26.58	27.41	26.46	0.7600
<b>Personal Accomplishment</b>	20.94	21.05	23.38	0.0129
<b>Depersonalization</b>	16.23	16.46	16.27	0.9378

Next, the differences in MBI measures based on marital status were analyzed with ANOVA. Again, two widowed individuals in the sample were combined with the divorced group to create three groups: married, formerly married, and single. Table 35 presents the average MBI scores by marital status; P-values less than 0.05 indicate where the scores are significantly different, and these measures are highlighted in yellow. Here, individuals who are married, on average, have significantly higher Personal Accomplishment scores than individuals who are single.

Table 35. Comparison of MBI Measures by Marital Status

<b>Strategy</b>	<b>Married Mean Score</b>	<b>Formerly Married Mean Score</b>	<b>Single Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	27.05	25.15	27.48	0.3122
<b>Personal Accomplishment</b>	23.25	21.68	20.74	0.0108
<b>Depersonalization</b>	16.07	16.33	16.48	0.8426

Next, the differences in MBI measures based on education were analyzed with ANOVA. Again, two individuals with master's degrees were combined with the bachelor's degree group to create three groups: high school, associate's degree, and college degree. Table 36 presents the average MBI measures by education; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant relationships between MBI measures and education.

Table 36. Comparison of MBI Measures by Education

<b>Strategy</b>	<b>High School Mean Score</b>	<b>Associate's Mean Score</b>	<b>College Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	26.19	28.26	27.06	0.3180
<b>Personal Accomplishment</b>	21.68	21.91	20.97	0.7046
<b>Depersonalization</b>	16.23	16.70	16.10	0.7498

Next, the differences in MBI measures based on personality type were analyzed with ANOVA. Again, two individuals who felt they were type C personalities were combined with those who felt they were type B personalities to form two groups: type A personalities and non-type A personalities. Table 37 presents the average MBI scores by perceived personality type; P-values less than 0.05 indicate where the scores are significantly different, and these measures are highlighted in yellow. Here, correctional officers who perceived themselves as having type A personalities, on average, have significantly lower Personal Accomplishment scores than non-type A personalities.

Table 37. Comparison of MBI Measures by Perceived Personality Type

<b>Strategy</b>	<b>Type A Mean Score</b>	<b>Non-Type A Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	27.79	25.94	0.1139
<b>Personal Accomplishment</b>	20.61	22.70	0.0035
<b>Depersonalization</b>	16.67	15.98	0.2412

Next, the differences in MBI measures based on prison security level were analyzed with ANOVA. Table 38 presents the average MBI scores by prison security level; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in MBI measures based on prison security level.

Table 38. Comparison of MBI Measures by Prison Security Level

<b>Strategy</b>	<b>Minimum Mean Score</b>	<b>Medium Mean Score</b>	<b>Maximum Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	24.78	27.84	26.60	0.1520
<b>Personal Accomplishment</b>	20.72	21.73	22.00	0.4652
<b>Depersonalization</b>	15.75	16.84	15.87	0.2294

Next, the differences in MBI measures based on the correctional officer's view of the primary purpose of prison were analyzed with ANOVA. Table 39 presents the average MBI scores by the view of prison purpose; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in MBI measures based on the view of prison purpose.

Table 39. Comparison of MBI Measures by View of Primary Purpose of Prison

<b>Strategy</b>	<b>Rehabilitation Mean Score</b>	<b>Incapacitation Mean Score</b>	<b>Punishment Mean Score</b>	<b>Deterrence Mean Score</b>	<b>P-value of Difference</b>
<b>Emotional Exhaustion</b>	27.84	25.45	26.65	26.75	0.5646
<b>Personal Accomplishment</b>	21.43	21.61	21.14	23.21	0.3385
<b>Depersonalization</b>	16.41	16.45	16.30	15.96	0.9652

Next, the differences in MBI measures between correctional officers with positive and negative relationships to their supervisors were analyzed with ANOVA. Table 40 presents the average scores on each of the MBI measures by supervisor relationships; P-values less than 0.05 indicate where the scores are significantly different, and these measures are highlighted in yellow. Here, correctional officers with negative relationships with their supervisors, on average, have significantly higher Emotional Exhaustion scores and significantly lower Personal Accomplishment scores than those with positive relationships.

Table 40. Comparison of MBI Measures by Relationship with Supervisor

Strategy	Positive Mean Score	Negative Mean Score	P-value of Difference
<b>Emotional Exhaustion</b>	27.67	23.39	0.0045
<b>Personal Accomplishment</b>	21.09	24.03	0.0014
<b>Depersonalization</b>	16.49	15.64	0.2662

Next, the differences in MBI measures among correctional officers with different numbers of children were analyzed with ANOVA. Table 41 presents the average scores on each of the MBI measures by number of children; P-values less than 0.05 indicate where the scores are significantly different, and as this did not occur here there are no significant differences found in MBI measures based on number of children.

Table 41. Comparison of MBI Measures by Number of Children

Strategy	Zero Mean Score	One Mean Score	Two Mean Score	Three Mean Score	Four Mean Score	Five Mean Score	P-value of Difference
<b>Emotional Exhaustion</b>	28.10	28.21	26.47	24.79	26.42	26.64	0.5626
<b>Personal Accomplishment</b>	22.28	21.92	21.35	21.55	20.58	21.36	0.9107
<b>Depersonalization</b>	16.13	16.16	16.46	16.72	16.25	16.00	0.9903

Next, the relationships between age and MBI measures were analyzed with linear regression. The following table records the slope of each linear regression model for predicting MBI scores with a correctional officer's age, which is interpreted as the expected increase (or decrease, if negative) in score given a one-year increase in age. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among MBI scores that is related to age. The closer this number is to 1, the higher the degree to which age can predict a correctional officer's MBI measure. Table 42 presents the predicted slopes of the relationships between age and each MBI measure; P-values less than 0.05 indicate where the relationship is statistically



significant, and these measures are highlighted in yellow. Here, as age increases, expected Depersonalization scores increase significantly.

Table 42. Relationships of MBI Measures and Age

Strategy	Slope	R <sup>2</sup>	P-Value of Slope
Emotional Exhaustion	-0.0248	0.0013	0.6156
Personal Accomplishment	-0.0366	0.0075	0.2256
Depersonalization	0.0547	0.0248	0.0272

Next, the relationships between years worked in prison and MBI measures were analyzed with linear regression. The following table records the slope of each linear regression model for predicting MBI scores with the number of years a correctional officer has worked in prison, which is interpreted as the expected increase (or decrease, if negative) in MBI score given a one-year increase in prison work. It also records the R<sup>2</sup> statistic, which can be interpreted as the proportion of variation among MBI scores that is related to number of years worked in prison. The closer this number is to 1, the higher the degree to which years worked can predict a correctional officer's MBI score. Table 43 presents the predicted slopes of the relationships between years worked and each MBI measure; P-values less than 0.05 indicate where the relationship is statistically significant, and as this did not occur here there are no significant relationships between MBI measures and years worked in prison.

Table 43. Relationships of MBI Measures and Years Worked in Prison

Strategy	Slope	R <sup>2</sup>	P-Value of Slope
Emotional Exhaustion	-0.1292	0.0132	0.1079
Personal Accomplishment	0.0089	0.0002	0.8567
Depersonalization	0.0311	0.0030	0.4445

Finally, the relationships between hours spent with inmates each week and MBI measures were analyzed with linear regression. The following table records the slope of each linear regression model for predicting MBI measures with the average number of hours per week in which the correctional officer works with inmates, which is interpreted as the expected increase

(or decrease, if negative) in MBI score given a one hour per week increase in time spent with inmates. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among MBI measures that is related to number of hours spent with inmates. The closer this number is to 1, the higher the degree to which number of hours spent with inmates can predict a correctional officer's MBI score. Table 44 presents the predicted slopes of the relationships between hours spent and each measure; P-values less than 0.05 indicate where the relationship is statistically significant, and as this did not occur here there are no significant relationships between MBI measures and hours spent with inmates.

Table 44. Relationships of MBI Measures and Hours Spent with Inmates

Strategy	Slope	$R^2$	P-Value of Slope
<b>Emotional Exhaustion</b>	0.0399	0.0040	0.3743
<b>Personal Accomplishment</b>	0.0270	0.0049	0.3266
<b>Depersonalization</b>	0.0387	0.0150	0.0867

*Relationship of ORQ, COPE, and MBI*

Here the relationships between the ORQ, COPE, and MBI are examined. First, the relationships between ORQ scores and COPE scores are analyzed with a correlation matrix. Table 45 provides Pearson correlation coefficients for each pair of ORQ and COPE scores for the correctional officers. The Pearson correlation coefficient is calculated on a scale from -1 to 1; a value near -1 indicates a very strong negative relationship (a negative relationship means that scoring higher on one scale indicates a correctional officer is likely to score lower on the other scale), a value near 0 indicates a very weak relationship, and a value near 1 indicates a very strong positive relationship (a strong positive relationship means that scoring higher on one scale indicates a correctional officer is likely to score higher on the other scale as well). By squaring the correlation coefficient, one calculates an  $R^2$  measurement, which describes the proportion of variation in each measurement that is related to the other measurement. Significant correlations

are highlighted in yellow. Due to space considerations, abbreviations were used in Table 45 to represent the different scores within the ORQ and the COPE; these abbreviations are explained in Table 46, which follows.

Table 45. Pearson Correlation Coefficients of ORQ and COPE

Variable	ORQ1	ORQ2	ORQ3	ORQ4	ORQ5	ORQ6	ORQ7	ORQ8
COPE1	0.21	0.26	0.15	0.24	0.20	0.13	0.20	0.16
COPE2	0.09	0.20	0.12	0.14	0.13	0.11	0.22	0.16
COPE3	-0.03	-0.10	-0.01	0.09	0.00	-0.04	0.03	0.08
COPE4	-0.01	-0.05	0.08	0.06	-0.03	0.06	0.04	0.09
COPE5	0.04	-0.02	0.00	0.09	-0.05	-0.06	-0.06	0.00
COPE6	0.04	0.17	0.19	0.09	0.22	0.09	0.10	0.06
COPE7	0.33	0.24	0.42	0.38	0.36	0.43	0.37	0.27
COPE8	-0.14	-0.20	-0.22	-0.17	-0.15	-0.17	-0.10	-0.09
COPE9	0.12	0.13	0.15	0.12	0.14	0.21	0.15	0.00
COPE10	0.03	0.18	0.10	0.15	0.11	0.04	0.09	0.09
COPE11	0.04	0.01	-0.01	0.03	-0.04	0.09	0.10	0.17
COPE12	-0.07	0.07	0.03	0.10	0.13	0.05	0.06	-0.03
COPE13	0.06	0.11	0.16	0.16	0.20	0.22	0.07	0.13
COPE14	0.12	0.25	0.20	0.20	0.18	0.16	0.14	0.22
COPE15	0.07	0.10	0.21	0.14	0.15	0.14	0.13	0.15
COPE16	-0.12	0.11	0.11	0.09	0.11	0.01	0.08	0.00

Table 45, cont'd. Pearson Correlation Coefficients of ORQ and COPE

Variable	ORQ9	ORQ10	ORQ11	ORQ12	ORQ13	ORQ14	ORQ15
COPE1	0.13	0.16	0.17	0.14	0.26	0.14	0.15
COPE2	0.16	0.21	0.14	0.17	0.11	0.21	0.20
COPE3	-0.04	-0.02	-0.05	-0.08	0.01	0.02	0.03
COPE4	-0.03	0.06	0.13	0.15	0.08	0.06	0.09
COPE5	-0.13	-0.06	-0.07	-0.01	0.09	0.04	-0.05
COPE6	0.09	0.09	0.05	0.10	0.17	0.07	0.05
COPE7	0.30	0.39	0.43	0.41	0.25	0.36	0.30
COPE8	-0.15	-0.12	-0.25	-0.20	-0.20	-0.15	0.02
COPE9	0.16	0.11	0.13	0.00	0.08	0.15	0.04
COPE10	0.00	0.13	0.00	0.03	0.17	0.07	0.13
COPE11	0.09	0.10	0.04	0.08	-0.04	0.07	0.00
COPE12	-0.02	0.00	-0.03	0.00	0.00	-0.10	0.01
COPE13	0.22	0.11	0.18	0.14	0.03	0.14	0.11
COPE14	0.15	0.19	0.18	0.17	0.15	0.18	0.28
COPE15	0.14	0.15	0.05	0.08	0.06	0.12	0.18
COPE16	0.05	0.05	-0.01	0.05	0.12	0.02	0.06

Table 46. Explanation of Abbreviations used in Table 45

<b>ORQ Abbreviation</b>	<b>ORQ Score</b>	<b>COPE Abbreviation</b>	<b>COPE Score</b>
<b>ORQ1</b>	Shift Work	<b>COPE1</b>	Get Rid of the Problem
<b>ORQ2</b>	Overtime Demands	<b>COPE2</b>	Let Out My Emotions
<b>ORQ3</b>	Risk of Being Injured	<b>COPE3</b>	Seek Support from Family
<b>ORQ4</b>	Not Enough Time with Family	<b>COPE4</b>	Seek Advice about what to do
<b>ORQ5</b>	Work Overload and Work Underload	<b>COPE5</b>	Seek Spiritual Help
<b>ORQ6</b>	Role Conflict	<b>COPE6</b>	Wait, Don't Overreact
<b>ORQ7</b>	Lack of Administrative Support	<b>COPE7</b>	Typically become Emotionally Distressed
<b>ORQ8</b>	Lack of Proper Training	<b>COPE8</b>	Exercise
<b>ORQ9</b>	Lack of participation in decision making	<b>COPE9</b>	Use Alcohol, Smoke or use other Drugs
<b>ORQ10</b>	Lack of Job Satisfaction	<b>COPE10</b>	Try to see it in a different light, make it positive
<b>ORQ11</b>	Interaction with inmates	<b>COPE11</b>	Criticize Myself
<b>ORQ12</b>	Crisis Situations	<b>COPE12</b>	Come up with Strategy to Improve Situation
<b>ORQ13</b>	Insufficient Salary	<b>COPE13</b>	Seek Therapy
<b>ORQ14</b>	Role Ambiguity	<b>COPE14</b>	Go to movies, watch television, read, sleep, etc.
<b>ORQ15</b>	Immediate Supervisor	<b>COPE15</b>	Learn to live with it
		<b>COPE16</b>	Meditate

Table 45 demonstrates that there are several strong relationships between ORQ scores and COPE scores. In particular, certain COPE scores seem to be highly correlated with multiple ORQ scores. The higher the frequency rating correctional officers assigned to getting rid of the problem, letting out their emotions, typically becoming emotionally distressed, seeking therapy, going to movies, watching television, reading sleeping etc., or learning to live with it, the more likely they were to rate their stress higher in multiple areas. On the other hand, the higher the frequency rating correctional officers assigned to exercising, the less likely they were to rate their stress higher in multiple areas. It should be stated this is not necessarily evidence that

exercise is a better coping mechanism than others for relieving stress; as this study is observational, causal relationships between variables cannot be determined. It could also indicate individuals with lower stress levels in general are more likely to exercise, or there could be some additional factors influencing both frequency of exercise as a reaction to stress and lower general stress levels (as a possible example, individuals with less time commitments outside of work may be less stressed and have more ability to exercise).

The final part of the analysis is to examine the relationships between MBI measures and both ORQ scores and COPE scores. These relationships were analyzed with linear regression. Each of the following tables records the slope of each linear regression model for predicting ORQ or COPE scores with average MBI measures. These slopes can be interpreted as the expected increase (or decrease, if negative) in the ORQ or COPE measure for every 1 point increase in the MBI measure. It also records the  $R^2$  statistic, which can be interpreted as the proportion of variation among ORQ or COPE scores that is related to the MBI measure. The closer this number is to 1, the higher the degree to which the MBI score can predict a correctional officer's ORQ or COPE scores.

Table 47 presents the predicted slopes of the relationships between each of the ORQ scores and Emotional Exhaustion; P-values less than 0.05 indicate where the relationship is statistically significant, and Table 47 indicates that higher stress in any area is highly significantly related to higher average levels of Emotional Exhaustion. Examining the  $R^2$  statistics indicates that the strongest relationships with Emotional Exhaustion are found with lack of decision making ( $R^2 = 0.1706$ ), overtime demands ( $R^2 = 0.1680$ ), and lack of job satisfaction ( $R^2 = 0.1612$ ).

Table 47. Relationship of Emotional Exhaustion with Stress

<b>Current Stressor</b>	<b>Slope</b>	<b>R<sup>2</sup></b>	<b>P-Value of Slope</b>
<b>Shift Work</b>	-1.40	0.1105	0.0000
<b>Overtime Demands</b>	-1.68	0.1680	0.0000
<b>Risk of Being Injured</b>	-1.69	0.1364	0.0000
<b>Not Enough Time with Family</b>	-1.14	0.0760	0.0001
<b>Work Overload and Work Underload</b>	-1.45	0.1153	0.0000
<b>Role Conflict</b>	-1.64	0.1245	0.0000
<b>Lack of Administrative Support</b>	-1.10	0.0679	0.0002
<b>Lack of Proper Training</b>	-1.30	0.0857	0.0000
<b>Lack of participation in decision making</b>	-1.74	0.1706	0.0000
<b>Lack of Job Satisfaction</b>	-1.70	0.1612	0.0000
<b>Interaction with inmates</b>	-1.85	0.1433	0.0000
<b>Crisis Situations</b>	-1.53	0.1116	0.0000
<b>Insufficient Salary</b>	-1.28	0.0839	0.0000
<b>Role Ambiguity</b>	-1.57	0.1160	0.0000
<b>Immediate Supervisor</b>	-1.26	0.0857	0.0000

Table 48 presents the predicted slopes of the relationships between each of the COPE scores and Emotional Exhaustion; P-values less than 0.05 indicate where the relationship is statistically significant, and these relationships are highlighted in yellow. The higher correctional officers' frequency ratings are on average for letting out their emotions, typically becoming emotionally distressed, using alcohol, smoking, or other drugs, going to movies, watching television, reading, sleeping, etc., the less likely they are to report high levels of Emotional Exhaustion; conversely, the higher their frequency ratings are on average for seeking spiritual help and exercising, the more likely they are to report high levels of Emotional Exhaustion. Again, it should be stated that this study is observational and therefore one cannot conclude that use of certain methods of stress relief are the cause of increased or decreased Emotional Exhaustion; it could be that higher Emotional Exhaustion causes an increased likelihood of using certain methods of stress relief, or it could be that there are other factors influencing both.

Table 48. Relationship of Emotional Exhaustion with Coping Strategy Frequency Rating

Strategy	Slope	R <sup>2</sup>	P-Value of Slope
Get Rid of the Problem	-0.22	0.0009	0.6789
Let Out My Emotions	-1.71	0.0426	0.0037
Seek Support from Family	0.52	0.0062	0.2714
Seek Advice about what to do	-0.09	0.0001	0.8669
Seek Spiritual Help	0.90	0.0200	0.0474
Wait, Don't Overreact	-0.49	0.0036	0.3999
Typically become Emotionally Distressed	-2.73	0.1171	0.0000
Exercise	1.27	0.0271	0.0207
Use Alcohol, Smoke or use other Drugs	-1.18	0.0316	0.0124
Try to see it in a different light, make it positive	0.62	0.0057	0.2912
Criticize Myself	0.36	0.0021	0.5260
Come up with Strategy to Improve Situation	1.10	0.0165	0.0720
Seek Therapy	-0.19	0.0006	0.7247
Go to movies, watch television, read, sleep, etc.	-1.30	0.0329	0.0107
Learn to live with it	-0.97	0.0156	0.0807
Meditate	-0.18	0.0009	0.6814

Table 49 presents the predicted slopes of the relationships between each of the ORQ scores and Personal Achievement; P-values less than 0.05 indicate where the relationship is statistically significant, and Table 49 indicates that higher stress in any area is highly significantly related to higher average levels of Personal Achievement. Examining the R<sup>2</sup> statistics indicates that the strongest relationships with Personal Achievement are found with interaction with inmates (R<sup>2</sup> = 0.1060) and lack of job satisfaction (R<sup>2</sup> = 0.1016).



Table 49. Relationship of Personal Accomplishment with Stress

<b>Current Stressor</b>	<b>Slope</b>	<b>R<sup>2</sup></b>	<b>P-Value of Slope</b>
<b>Shift Work</b>	0.36	0.0198	0.0486
<b>Overtime Demands</b>	0.70	0.0771	0.0001
<b>Risk of Being Injured</b>	0.80	0.0816	0.0000
<b>Not Enough Time with Family</b>	0.50	0.0391	0.0053
<b>Work Overload and Work Underload</b>	0.46	0.0310	0.0133
<b>Role Conflict</b>	0.76	0.0716	0.0001
<b>Lack of Administrative Support</b>	0.42	0.0270	0.0211
<b>Lack of Proper Training</b>	0.67	0.0605	0.0005
<b>Lack of participation in decision making</b>	0.62	0.0590	0.0006
<b>Lack of Job Satisfaction</b>	0.83	0.1016	0.0000
<b>Interaction with inmates</b>	0.98	0.1060	0.0000
<b>Crisis Situations</b>	0.74	0.0700	0.0002
<b>Insufficient Salary</b>	0.69	0.0641	0.0003
<b>Role Ambiguity</b>	0.68	0.0579	0.0007
<b>Immediate Supervisor</b>	0.53	0.0398	0.0049

Table 50 presents the predicted slopes of the relationships between each of the COPE scores and Personal Achievement; P-values less than 0.05 indicate where the relationship is statistically significant, and these relationships are highlighted in yellow. The higher correctional officers' frequency ratings on average for typically becoming emotionally distressed and seeking therapy, the more likely they are to report higher Personal Achievement scores.

Table 50. Relationship of Personal Accomplishment with Coping Strategy Frequency Rating

Strategy	Slope	R <sup>2</sup>	P-Value of Slope
Get Rid of the Problem	0.47	0.0103	0.1549
Let Out My Emotions	0.59	0.0133	0.1071
Seek Support from Family	0.42	0.0105	0.1524
Seek Advice about what to do	0.25	0.0029	0.4546
Seek Spiritual Help	-0.33	0.0071	0.2399
Wait, Don't Overreact	-0.38	0.0057	0.2910
Typically become Emotionally Distressed	0.77	0.0251	0.0266
Exercise	-0.60	0.0162	0.0745
Use Alcohol, Smoke or use other Drugs	0.42	0.0105	0.1527
Try to see it in a different light, make it positive	-0.25	0.0024	0.4986
Criticize Myself	0.00	0.0000	0.9950
Come up with Strategy to Improve Situation	-0.30	0.0033	0.4258
Seek Therapy	0.82	0.0304	0.0142
Go to movies, watch television, read, sleep, etc.	0.33	0.0056	0.2944
Learn to live with it	0.23	0.0023	0.4992
Meditate	0.37	0.0097	0.1696

Table 51 presents the predicted slopes of the relationships between each of the ORQ scores and Depersonalization; P-values less than 0.05 indicate where the relationship is statistically significant, and these relationships are highlighted in yellow. The majority of stressors are significantly negatively related to Depersonalization (the exceptions are lack of administrative support, crisis situations, insufficient salary, and immediate supervisor). Examining the R<sup>2</sup> statistics indicates the strongest relations is found between Depersonalization and role conflict (R<sup>2</sup> = 0.0741).

Table 51. Relationship of Depersonalization with Stress

Current Stressor	Slope	R <sup>2</sup>	P-Value of Slope
Shift Work	-0.55	0.0660	0.0003
Overtime Demands	-0.32	0.0237	0.0308
Risk of Being Injured	-0.46	0.0400	0.0049
Not Enough Time with Family	-0.30	0.0202	0.0466
Work Overload and Work Underload	-0.48	0.0487	0.0018
Role Conflict	-0.64	0.0741	0.0001
Lack of Administrative Support	-0.27	0.0160	0.0762
Lack of Proper Training	-0.41	0.0335	0.0100
Lack of participation in decision making	-0.53	0.0604	0.0005
Lack of Job Satisfaction	-0.45	0.0446	0.0029
Interaction with inmates	-0.42	0.0283	0.0185
Crisis Situations	-0.23	0.0101	0.1600
Insufficient Salary	-0.06	0.0006	0.7242
Role Ambiguity	-0.33	0.0204	0.0451
Immediate Supervisor	-0.25	0.0128	0.1128

Table 52 presents the predicted slopes of the relationships between each of the COPE scores and Depersonalization; P-values less than 0.05 indicate where the relationship is statistically significant, and these relationships are highlighted in yellow. The higher correctional officers' frequency ratings, on average, for letting out their emotions, typically becoming emotionally distressed, using alcohol, smoking, or other drugs, or learning to live with it, the lower their Depersonalization score; conversely, the higher the officers' frequency ratings, on average, for seeking spiritual help, the higher their Depersonalization scores.

Table 52. Relationship of Depersonalization with Coping Strategy Frequency Rating

Strategy	Slope	R <sup>2</sup>	P-Value of Slope
<b>Get Rid of the Problem</b>	-0.24	0.0039	0.3805
<b>Let Out My Emotions</b>	<b>-0.77</b>	<b>0.0349</b>	<b>0.0087</b>
<b>Seek Support from Family</b>	-0.16	0.0023	0.5082
<b>Seek Advice about what to do</b>	0.12	0.0010	0.6630
<b>Seek Spiritual Help</b>	<b>0.50</b>	<b>0.0244</b>	<b>0.0284</b>
<b>Wait, Don't Overreact</b>	0.07	0.0003	0.8189
<b>Typically become Emotionally Distressed</b>	<b>-0.88</b>	<b>0.0485</b>	<b>0.0019</b>
<b>Exercise</b>	-0.02	0.0000	0.9337
<b>Use Alcohol, Smoke or use other Drugs</b>	<b>-0.64</b>	<b>0.0364</b>	<b>0.0073</b>
<b>Try to see it in a different light, make it positive</b>	0.05	0.0002	0.8558
<b>Criticize Myself</b>	-0.31	0.0059	0.2829
<b>Come up with Strategy to Improve Situation</b>	0.36	0.0071	0.2402
<b>Seek Therapy</b>	-0.32	0.0069	0.2466
<b>Go to movies, watch television, read, sleep, etc.</b>	-0.31	0.0074	0.2285
<b>Learn to live with it</b>	<b>-0.84</b>	<b>0.0459</b>	<b>0.0025</b>
<b>Meditate</b>	-0.15	0.0022	0.5089

## DISCUSSION

All correctional institutions have the capability to assist officers to better perform their duties and maintain healthier, more productive lifestyles. The information from this research could bring additional awareness to the need to create an enhanced training base, along with additional training resources for correctional officers. Moreover, the information collected from this project could bring awareness to prison administrators with identifying and mitigating the amount of stress officers sustain while working within the prison system.

This study attempted to illustrate that stress, from working within of a prison, could be a product of the profession. Each officer has distinctive ways of dealing with stress. The fundamental problem could be the correctional officer's job generates stress, and not necessarily the effect of some internal deficiencies within each individual correctional officer. Therefore,

stress should be treated as an institutional problem, involving all personnel, instead of relying on self-help programs, like the employee assistance program.

Each prison has its own unique characteristics that should be readily identifiable. Implementing organization, group and individual diagnosis techniques, from the field of organizational development, could help with employing programs to match the exact needs of officers, family members and the organization (Huse and Cummings 1985). The impact of not identifying and addressing institutional problems, and harmful aspects of the work environment, could have considerable cost at an individual and organizational level.

Numerous research studies have shown correctional officers have typically identified the organization as a major source of their stress (Finn, 1998). Therefore, prisons should be cognizant of the steps necessary to achieve a healthier, less stressful work environment. Though it is not practical to remove all workplace stress for correctional officers, it could be possible, through the enhancement and execution of institutional programs, to assist officers to live healthier, happier lives. Unfortunately, as long as prisons exist, prison work will remain a tough, unsafe, and stressful job.

#### LIMITATIONS OF CURRENT RESEARCH

Similar to earlier research on causes of correctional officer's stress, this study had some limitations. The most noteworthy limitation was the small amount of time the data was gathered. In an effort to ascertain reliability over time, it might be useful to conduct a longitudinal study to compare stress levels and perceptions of personal welfare over a period of several years. It is possible the results of the information could differ significantly from year to year. As an example, in 1980, approximately 90% of correctional officers were male; however, in 2002, only 78% of correctional officers were male (Camp and Camp, 1995). It could be beneficial to track

data as the profession of correctional officers transitions from a male-dominated career, to one with an increasingly larger female presence.

This study examined the correctional officers' perceived work related stress; however, objective measures of these constructs were not used because of logistical and security concerns of the three institutions. Correctional officer measures of sick leave and disciplinary violations could potentially prove useful with providing a more sufficient criterion of stress more closely linked to real-world applications.

In evaluating the idea of coping styles, adjustments, and burnout, it was possible social desirability effects might have distorted the participants' answers. A quantity of potential response biases could have altered the validity of some of the results. The officers who participated could have been worried about losing their jobs if their supervisor discovered they were having problems coping with stress. Furthermore, some officers might have simply overstated the unenthusiastic aspects of their job. Therefore, the current administration of a social appeal measure would have been practical in describing the correctional officers' styles of responding.

## CONCLUSION

First, relationships between demographic variables and Occupational Resource Questionnaire scores were examined. Certain demographic variables were significantly related to differences on average ORQ scores. African American correctional officers are more likely to report higher average stress levels in multiple areas, as are female correctional officers, correctional officers who are married or formerly married compared to single correctional officers, and correctional officers with negative relationships with their supervisors. Other demographic variables are related to stress in certain areas, though the direction of the relationship (more stress or less stress) is not necessarily the same for each of these areas, and

those variables include number of children, age of the correctional officer, and years worked in prison. The remaining demographic variables did not appear to have any significant relationship with stress, and those variables include shift worked, education, perceived personality type, prison security level, view of primary purpose of prison, and hours worked with inmates.

Next, relationships between demographic variables and COPE coping strategy frequency ratings were examined. African American correctional officers, on average, reported higher frequency ratings for several coping strategies, but lower frequency ratings for criticizing themselves. Female correctional officers reported higher average frequency ratings for multiple coping strategies. Single correctional officers reported lower average frequency ratings for going to movies, watching television, reading, sleeping etc. Correctional officers with a college education reported higher average frequency ratings for seeking therapy. Correctional officers who perceive that they have a type A personality reported higher average frequency ratings for several coping strategies, as did correctional officers with negative relationships with their supervisors. The number of children a correctional officer has affects frequency ratings in two areas, exercise (single individuals on average are more likely than individuals with children to give higher frequency ratings to exercise) and criticizing themselves (individuals with five children are more likely on average than individuals with fewer numbers of children to give higher frequency ratings to self-criticism). Older individuals report significantly decreased frequency ratings for several coping strategies. Years worked in prison seems to be associated with a change in coping strategies; as correctional officers work in prison longer, frequency ratings decrease on average in several areas, particularly those related to seeking advice or support, and frequency ratings increase on average in several other areas, including use of alcohol, smoking, or use of other drugs, learning to live with it, and meditation. Demographic

variables that do not appear to affect frequency ratings of coping strategies are shift worked, prison security level, view of primary purpose of prison, and hours spent with inmates.

Next, the relationship between demographic variables and Maslach Burnout Inventory scores were examined. Higher average levels of Emotional Exhaustion were reported by correctional officers with negative relationships with their supervisors. Higher average levels of Personal Accomplishment were reported by correctional officers who work the third shift, married correctional officers (as opposed to single correctional officers), correctional officers who do not view themselves as having a type A personality, and correctional officers with negative relationships with their supervisors. Higher average Depersonalization scores were reported by older correctional officers. The demographic variables that did not appear to be related to any of the MBI measures were race, gender, education, prison security level, view of primary purpose of prison, number of children, years worked in prison, and hours spent with inmates.

The final analyses examined the relationships between the ORQ, COPE, and MBI. Pearson correlation coefficients were used to determine the relationship between the ORQ scores and the COPE scores of the officers. The higher the frequency rating correctional officers assigned to getting rid of the problem, letting out their emotions, typically becoming emotionally distressed, seeking therapy, going to movies, watching television, reading sleeping etc., or learning to live with it, the more likely they were to rate their stress higher in multiple areas. On the other hand, the higher the frequency rating correctional officers assigned to exercising, the less likely they were to rate their stress higher in multiple areas. Linear regressions were used to determine the relationships of both the ORQ scores and COPE scores with the MBI scores. All stressor scores were found to have positive relationships with both Emotional Exhaustion and



Personal Accomplishment (that implies that the higher correctional officers rate their stress in a particular area, the more likely they are to report higher levels of both Emotional Exhaustion and Personal Accomplishment), and additionally the majority of stressor scores were found to have negative relationships with Depersonalization (the higher correctional officers rate their stress in a particular area, the less likely they are to report high levels of Depersonalization).

The relationships between frequency ratings of various coping strategies and the MBI measures are not as uniform as those for stress ratings. With regard to Emotional Exhaustion, the higher correctional officers' frequency ratings are on average for letting out their emotions, typically becoming emotionally distressed, using alcohol, smoking, or other drugs, going to movies, watching television, reading, sleeping, etc., the less likely they are to report high levels of Emotional Exhaustion; conversely, the higher their frequency ratings are on average for seeking spiritual help and exercising, the more likely they are to report high levels of Emotional Exhaustion. With regard to Personal Accomplishment, the higher correctional officers' frequency ratings on average for typically becoming emotionally distressed and seeking therapy, the more likely they are to report higher Personal Achievement scores. Finally, with regard to Depersonalization, the higher correctional officers' frequency ratings, on average, for letting out their emotions, typically becoming emotionally distressed, using alcohol, smoking, or other drugs, or learning to live with it, the lower their Depersonalization score; conversely, the higher the officers' frequency ratings, on average, for seeking spiritual help, the higher their Depersonalization scores.

While it has been stated several times throughout this manuscript, it should again be emphasized that the results of this study cannot be used to demonstrate causation. These results only demonstrate that there are significant relationships between certain demographic

characteristics, ORQ scores, COPE scores, and MBI measures. The results do not demonstrate that these factors *cause* differences in other factors, however.

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## APPENDIXES



## Appendix 1: Occupational Resource Questionnaire

## Occupational Resource Questionnaire

Appendix 1. Below is a survey that list items describing different aspects of being a correctional officer. After each item, please circle how much stress it has caused you over the past six months, using a 7-point scale (see below) that ranges from “No Stress at All” to “A lot of Stress:”

No Stress at All			Moderate Stress			A Lot of Stress
1	2	3	4	5	6	7

## 1. Shift Work

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 2. Over-time demands

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 3. Risk of being injured on the job

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 4. Not enough time with family

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 5. Work Overload

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 6. Role Conflict

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 7. Lack of Support from Administration

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 8. Lack of Proper Training

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 9. Lack of participation in decision making

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 10. Lack of job satisfaction

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 11. Interaction with inmates

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 12. Crisis situations

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 13. Not receiving adequate pay

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 14. Role Ambiguity

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## 15. Immediate Supervisor

1	2	3	4	5	6	7
---	---	---	---	---	---	---

## Appendix 2: Causes of Correctional Officer Stress and Its Consequences

## Causes of Correctional Officer Stress and Its Consequences

Appendix 2. Below is a list of items describing different aspects of being the Maslach Burnout Inventory. After each item, please circle how much emotional tension it causes you, using a 5-point scale (see below) that ranges from “Strongly Agree” to “Strongly Disagree:”

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

### EMOTIONAL EXHAUSTION

I feel emotionally drained from work.

1	2	3	4	5
---	---	---	---	---

I feel used up at the end of the workday.

1	2	3	4	5
---	---	---	---	---

I feel fatigued when I get up in the morning, and have to face another day on the job.

1	2	3	4	5
---	---	---	---	---

Working with other people all day is an emotional strain.

1	2	3	4	5
---	---	---	---	---

I feel burned out from my work.

1	2	3	4	5
---	---	---	---	---

I feel frustrated by my job.

1	2	3	4	5
---	---	---	---	---

I feel I’m working too hard on my job.

1	2	3	4	5
---	---	---	---	---

Working with people directly puts too much stress on me.

1	2	3	4	5
---	---	---	---	---

I feel like I’m at the end of my rope.

1	2	3	4	5
---	---	---	---	---

### PERSONAL ACCOMPLISHMENT

I can easily understand now inmates feel about things.

1	2	3	4	5
---	---	---	---	---

I deal very effectively with the problems of my inmates.

1	2	3	4	5
---	---	---	---	---

I feel I'm positively influencing other people's lives through my work.

1	2	3	4	5
---	---	---	---	---

I feel very energetic.

1	2	3	4	5
---	---	---	---	---

I can easily create a relaxed atmosphere with inmates.

1	2	3	4	5
---	---	---	---	---

I feel exhilarated after working closely with inmates.

1	2	3	4	5
---	---	---	---	---

I have accomplished many worthwhile things in this job.

1	2	3	4	5
---	---	---	---	---

In my work, I deal with emotional problems very calmly.

1	2	3	4	5
---	---	---	---	---

#### DEPERSONALIZATION

I treat inmates as if they were impersonal objects.

1	2	3	4	5
---	---	---	---	---

I have become more callous towards inmates since I took this job.

1	2	3	4	5
---	---	---	---	---

I worry that this job is hardening me emotionally.

1	2	3	4	5
---	---	---	---	---

I don't really care what happens to some inmates.

1	2	3	4	5
---	---	---	---	---

I feel inmates blame me for some of their problems.

1	2	3	4	5
---	---	---	---	---

### Appendix 3: Correctional Officers Stress Management Techniques

### Appendix 3. Correctional Officers Stress Management Techniques

1. Look for support
  - A. Talk about problems with co-workers
  - B. Search for professional assistance
    - a. therapy
    - b. prescription drugs
  - C. Talk with immediate family
  - D. Spiritual Help
2. Try to Accomplish Job Expectation Correctly
  - A. Handle inmates fair and square
    1. Behave towards inmates in humane manner
    2. Brief inmates about your expectations
  - B. Acquire better knowledge of inmates
    1. Monitor inmates directly
    2. Attempt to comprehend inmates' point of view
  - C. Pursue correct course of action
    1. Attempt to recognize reasons for directions and orders
    2. Follow instructions
3. Construct Space for Occupational Stressors
  - A. Public separation
    1. Do not act as if you like co-workers if you don't
    2. Do not share personal information with co-workers
  - B. Participate in community or personal activities
    1. Exercise
    2. Outdoor recreation
    3. Sporting events
  - C. Psychological separation
    1. Do not think about work related troubles
    2. Employ wit

## Appendix 4: Carver Coping Scales



## Carver Coping Scales

Appendix 4. These items deal with ways you've been coping with the stress since working in corrections. There are numerous ways to deal with various difficult, stressful, or upsetting situations. These items ask what you've been doing to cope with stress from your job. Please rate each of the following on a scale of 1-5. Indicate how much you engage in these activities when you find yourself in an upsetting or stressful situation. Try to rate each item separately in your mind from the other questions. Make your answers as true for you as you can.

Coping Strategy	Never	Rarely	Sometimes	Often	Always
My typical reaction is to try to get rid of the problem	1	2	3	4	5
I typically let out my emotions	1	2	3	4	5
Seek out support from family and friends	1	2	3	4	5
Seek advice from someone about what to do	1	2	3	4	5
Seek religion and trust in God	1	2	3	4	5
Normally wait, because reacting too fast makes it worse	1	2	3	4	5
Typically become emotionally distressed	1	2	3	4	5
Exercise	1	2	3	4	5
Use alcohol, other drugs or smoke	1	2	3	4	5
Try to see it in a different light, to make it more positive	1	2	3	4	5
I typically criticize myself	1	2	3	4	5
Try to come up with a strategy to improve situation	1	2	3	4	5
Seek Therapy	1	2	3	4	5
Go to the movies, watch television, read, sleep or shop to take my mind off situation	1	2	3	4	5
Learn to live with it	1	2	3	4	5
Meditate	1	2	3	4	5

## Appendix 5: Qualitative Questionnaire

## Appendix 5. Qualitative Questionnaire

Directions: Please check the categories for each question that applies to you.

1. Gender: Male ☐ Female ☐ Age \_\_\_\_\_.
2. Marital status: single....☐ divorced...☐ married....☐
3. Number of children you have: 0...☐ 1...☐ 2...☐ 3 ...☐ 4...☐ 5...☐
4. Race: African American...☐, Caucasian...☐, Asian-American...☐, Mexican-American...☐
5. Education: What is the highest level of education you have completed?  
High School/GED...☐ AA/AS degree...☐ BA/BS degree...☐ MA/MS...☐
6. How would you describe your relationship with your supervisor: Positive ☐ Negative ☐
7. How would you describe your personality:  
Type A (assertive) ☐ Type B (relaxed) ☐ Type C (unassertive) ☐
8. How long have you worked with the department of corrections: \_\_\_\_ years \_\_\_\_ months.
9. What do you think is the primary purpose of prisons:  
Rehabilitation...☐ Incapacitation...☐ Punishment...☐ Deterrence...☐
10. Circle your current work shift:  
1<sup>st</sup>... ☐ 2<sup>nd</sup>... ☐ 3<sup>rd</sup>... ☐ Other ☐
11. How many hours per week do you spend in contact with inmates: \_\_\_\_\_
12. In the past three months how many times have you:  
Been late for work? Yes ☐ No ☐ If yes, how many times? \_\_\_\_\_  
Missed work? Yes ☐ No ☐ If yes, how many times? \_\_\_\_\_  
Been off for vacation? Yes ☐ No ☐ If yes, how many days? \_\_\_\_\_

## Appendix 6: Cover Letter to Correctional Officers



## Indiana State University

### The Causes of Correctional Officer Stress and Its Consequences

March 24, 2011

Dear Respondent,

You are being invited to participate in a research to find out about the different factors that cause the most stress for correctional officers. This study is being conducted by William D. McCarthy and Doctor Shannon Barton, from the Criminal Justice Department at Indiana State University. The study is part of the requirements for a thesis. The objective of this research project is to examine the causes of stress and scrutinize how stress can affect correctional officers. Through your participation, you will help people understand the primary causes of stress for correctional officers.

There are no known risks if you decide to participate in this research study. The information you provide will be used to examine the primary factors that contribute to correctional officer stress. The enclosed questionnaires should only take a couple of minutes to complete. The information collected may not benefit you directly, but the information learned could provide general benefits to the field of corrections.

These survey are anonymous. Do not write your name on the surveys. No one will be able to identify you or your answers, and no one will know if you participated in the study. Individuals from the Institutional Review Board (IRB) may inspect these records. Should the data be published, no individual information will be disclosed.

Your participation in this study is voluntary. By completing the three questionnaire and two surveys, you are voluntarily agreeing to participate. You are free to decline to answer any particular question you do not wish to answer for any reason. If you choose to do so, complete the questionnaire and surveys and send it back to me in the enclosed postage-paid envelope.

If you have any questions about completing the questionnaire or surveys, or about participating in this study, you may contact me at (706) 543-7318, or [wmccarthy4@sycamores.indstate.edu](mailto:wmccarthy4@sycamores.indstate.edu). You can contact Doctor Barton at (812) 237-8332, or e-mail at [shannonbarton@sycamores.indstate.edu](mailto:shannonbarton@sycamores.indstate.edu). This study (IRB Ref # 11-104) was approved by the IRB on March 24, 2011.

Sincerely,

William D. McCarthy

William D. McCarthy  
Department of Criminal Justice  
240 Holmstedt Hall  
Terre Haute, Indiana 47809  
(812) 234-2345

Summary of important points:

- ☐ Your participation in this study is voluntary. You don't have to participate if you don't want to.
- ☐ If you choose not to participate, your decision will not be held against you by the correctional institution.
- ☐ If you do choose to participate, your decision will not result in any rewards from the correctional institution, or the University of Indiana State.
- ☐ All of your information will be kept strictly confidential. No names will be written on the questionnaires.
- ☐ All of your information will be stored in a locked facility and only the researchers and professional consultants will have access to them. The staff of the institution will not have access to the specific information you provide.
- ☐ The information collected in this study will be used in a Master's Thesis that may be presented at a conference or printed in a publication so that other professionals can learn from this project. The data will be provided in a general format and all information that you provide will remain anonymous.
- ☐ The researcher will be happy to address any questions or concerns you may have about this study. The address and phone numbers of the researcher is listed at the bottom of the Cover Letter.

## Appendix 7: Causes of Stress for Correctional Officers

### Causes of Stress for Correctional Officers

- I. Interaction with Inmates
  - A. Inmate's poor attitude towards officers
    - 1. inmates attempt to bring lawsuits against officers
    - 2. inmates allege unfair treatment
  - B. Inmates attempt to manipulate officers
- II. Personal Safety
- III. Security Level of Prison
  - A.. Maximum-security level prisons stricter standards
  - B. More prone to violence
- IV. Interpersonal Conflict
- V. Lack of Input into Decision Making
  - A. Value and experience under appreciated
  - B. Inability to change inadequate procedures within facility
- VI. Stressful Job or Role Conflict
- VII. Lack of Administrative Support
  - A. Lack of trust/respect
  - B. Hard to perform job correctly
    - 1. Regulations change
    - 2. Rules don't apply to certain officers
  - A. Job insecurity
    - 1. Seniority right denied
    - 2. Officers terminated without adequate cause
- VIII. Lack of Job Satisfaction
  - A. Loss of interest in job
  - B. Passive in performing duties
  - C. Lack of advancement opportunities
  - D. Complacency
  - D. Strenuous to follow mundane task
- IX. Tenure
  - A. How Long Employed at Current Prison
  - B. How Many Years Employed by Department of Corrections
- X. Gender
  - A. Male
  - B. Female



- XI. Work-Overload / Underload
  - A. Too many demands simultaneously
  - B. Understaffed
  - C. Not enough task during shift
  - D. Too much idle time
- XII. Role Ambiguity
  - A. Tasked as caregiver
  - B. Tasked as disciplinarian
  - C. Lack of guidance
  - D. Lack of proper training
- XIII. Age
  - A. Teenager working within corrections
  - B. Younger correctional officer
  - C. Older correctional officer
- XIV. Insufficient Salary
  - A. Starting Salary
  - B. Median Salary in local community
- XV. Shift Work
  - A. Lack of available baby sitters for night shift workers
  - B. Sleep deprivation
  - C. Sleeping at irregular hours
- XV. Personality Type
  - A. Type A
  - B. Type B
  - C. Type C

## Appendix 8: Cover Letter to Warden



## Indiana State University

March 24, 2011

Dear Warden XXXXX,

I am a graduate student at Indiana State University and I am requesting your authorization to complete a portion of my thesis at your institution. The thesis is an effort to find out about the different factors that cause the most stress for correctional officers. The objective of this research project is to examine the causes of stress and look at how stress can affect correctional officers.

To help with the validity of this thesis, I need to administer anonymous surveys to approximately 200 correctional officers working at maximum, medium, and minimum-security level prisons. There will be no risk to those correctional officers who decide to participate, they will not be able to be identified, and they will not incur any cost. Additionally, they will be provided with a self-addressed, postage-paid envelope to return the surveys.

I've enclosed a copy of the surveys I would like to distribute to your officers. I enclosed a copy of the Indiana State University Institutional Review Board's approval, dated March 24, 2011. If there are any questions or concerns about this research project, you can contact me at (706) 543-7318, e-mail: [wmccarthy4@wmccarthy4@sycamores.indstate.edu](mailto:wmccarthy4@wmccarthy4@sycamores.indstate.edu). Doctor Barton at (812) 237-8332, e-mail: [shannonbarton@sycamores.indstate.edu](mailto:shannonbarton@sycamores.indstate.edu). Or, the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or e-mail: [irb@sycamores.indstate.edu](mailto:irb@sycamores.indstate.edu). This study (IRB Ref. #11-104) was approved by the IRB on March 24, 2011.

Sincerely,

William D. McCarthy

Department of Criminal Justice  
Indiana State University  
Terre Haute, Indiana 47809

## Appendix 9: Approval Letter from Institutional Review Board



### *Institutional Review Board*

Terre Haute, Indiana 47809  
812-237-3092  
Fax 812-237-3092

DATE: March 24, 2011

TO: William McCarthy, Master's of Art degree in Criminology

FROM: Indiana State University Institutional Review Board

STUDY TITLE: [189922-2] "Causes of Correctional Officer Stress and Its Consequences"

IRB REFERENCE #: 11-104

SUBMISSION TYPE: Revision

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: March 24, 2011

REVIEW CATEGORY: Exemption category #2

Thank you for your submission of Revision materials for this research study. The Indiana State University Institutional Review Board has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations (45 CFR 46). You do not need to submit continuation requests or a completion report. Should you need to make modifications to your protocol or informed consent forms that do not fall within the exempt categories, you will have to reapply to the IRB for review of your modified study.

**Informed Consent:** All ISU faculty, staff, and students conducting human subjects research within the "exempt" category are still ethically bound to follow the basic ethical principles of the Belmont Report: a) respect for persons; 2) beneficence; and 3) justice. These three principles are best reflected in the practice of obtaining informed consent.

If you have any questions, please contact Thomas Steiger within IRBNet by clicking on the study title on the "My Projects" screen and the "Send Project Mail" button on the left side of the "New Project Message" screen. I wish you well in completing your study.

## Appendix 10: Approval Sheet

**College of Graduate and Professional Studies  
Indiana State University  
Terre Haute, Indiana**



**APPROVAL OF THESIS OR DISSERTATION PROPOSAL**

Title Causes of Correctional Officer Stress and Its Consequences

Steps to be taken in the preparation of a thesis or dissertation are presented in the Graduate Catalog. A hard copy of the proposal (including statements of purpose, methodology, etc.) must be attached to this form.

Student's Name McCarthy, William D. Student ID 991-557-575  
Last First Middle  
Date of Defense February 18, 2011

The Committee members certify that the student has successfully defended a written proposal that meets the program standards. Additionally, the student has made all requested edits and revisions, if any.

Committee Member Dr. Shannon Barton-Bellessa

Date 02/16/2011

Signature [Signature]

Committee Member Dr. David Polizzi

Date 02/16/2011

Signature [Signature]

Committee Member Dr. Frank Wilson

Date 02/16/2011

Signature [Signature]

Committee Member \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Committee Member \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Upon recommendation of the Committee Chair and Committee, we acknowledge that the proposal has been defended and certified to meet the standards of the program and the college.

Department Chair or Representative Dr. DeVere Woods

Date 2/16/2011

Signature [Signature]

College Dean or Representative \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

College of Graduate and Professional Studies

Dean or Representative \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_

Submit this form and a hard copy of the proposal to the College of Graduate and Professional Studies.

Distribution: Committee Chairperson, Student, the College of Graduate and Professional Studies.